

Plaintiffs' Cross-Notice of Remote Deposition  
and Non-Retained Expert Witness Disclosure of  
Dr. Rahul Gupta

# Exhibit 4

Plaintiffs' Supplemental Federal Rule Civil  
Procedure 26(a)(2)(C) Disclosures  
(Doc 1146-1)

*City of Huntington, et al. v. ABDC, et al.*  
3:17-cv-01362, 3:17-cv-01655

Ex 1 – Plaintiffs’ Supplemental Federal Rule Civil Procedure 26(a)(2)(C) Disclosures

Plaintiffs’ Memorandum of Law in Opposition to Defendants’ Motion to Exclude  
Undisclosed Expert Testimony from Non-Retained Expert Witnesses

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF WEST VIRGINIA

CITY OF HUNTINGTON,

Plaintiff,

v.

AMERISOURCEBERGEN DRUG  
CORPORATION, *et al.*,

Defendants.

Civil Action No. 3:17-cv-01362

CABELL COUNTY COMMISSION,

Plaintiff,

v.

AMERISOURCEBERGEN DRUG  
CORPORATION, *et al.*,

Defendants.

*Consolidated case:*

Civil Action No. 3:17-01665

Hon. David A. Faber

**PLAINTIFFS' SUPPLEMENTAL FEDERAL RULE CIVIL  
PROCEDURE 26(a)(2)(C) DISCLOSURES**

Pursuant to Federal Rule of Civil Procedure 26, the City of Huntington and the Cabell County Commission, "Plaintiffs," hereby supplement their Federal Rule Civil Procedure 26(a)(2)(C) disclosures [See Dkt. 825]. As previously disclosed, the following witnesses are expected to testify as to their respective backgrounds, training and professional observations and experiences; these witnesses may offer both fact and expert testimony in accordance with the facts and opinions set forth in

their deposition testimony.<sup>1</sup> By providing this supplemental disclosure, Plaintiffs do not concede that the summary of the testimony implicates opinions required to be disclosed under Rule 26(a)(2)(A) as opposed to opinions governed by Federal Rule of Evidence 701.<sup>2</sup> The opinions are summarized as follows:

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<sup>1</sup> These witnesses were initially disclosed on Plaintiffs' Preliminary Witness list filed on June 3, 2020 (Dkt. 503). Furthermore, the Defendants served subpoenas regarding all of these witnesses, either directly or through their employers. See e.g. Dkt. 340.1, 354.1, 449.1, 450.1, 903.1. Additionally, these witnesses were identified in the Plaintiffs' previous disclosures as witnesses that might be called as Fed. R. Civ. Pr. 26(a)(2)(C) witnesses. (See Dkt. 825 and 1055.1).

<sup>2</sup> Plaintiffs withdraw their identification of the following witness as Rule 26(a)(2)(C) witnesses: Hank Dial; Skip Holbrook; Robert Hansen, MS; Zachary Hansen, M.D.; Rocky Johnson; Scott Lemley; Jan Rader; Gordon Merry; Steve Murray; Connie Priddy; Chuck Zerkle; Allen Mock and Mitzi Payne. Plaintiffs may call these witnesses as fact witnesses and may seek opinion testimony from them that falls within Federal Rule of Evidence 701.

### A. DAVID G. CHAFFIN, JR., M.D., FACOG

Dr. David Chaffin is a professor of obstetrics and gynecology and the director of maternal fetal medicine at Marshall University School of Medicine.<sup>3</sup> Dr. Chaffin has noticed a marked increase in the opiate addiction in the areas since he joined the staff of Marshall in 1998.<sup>4</sup> Dr. Chaffin will present evidence and provide testimony on the subject matter of opioid addiction, and the opioid epidemic in Cabell County and the City of Huntington, based on his personal knowledge and experience, and in conformance with the facts and opinions expressed during his deposition, as summarized below:

- The commonality of opiate addiction as co-morbidity in pregnancy<sup>5</sup>;
- Subutex is a reasonable treatment of opiate addiction<sup>6</sup>;
- Observable shift seen via Maternal Addiction Recovery Center (“MARC”) program in 2012 from mothers addicted to opiate pills to 2020, from mothers addicted to heroin<sup>7</sup>;
- Patients who successfully complete MARC at the time of delivery are more likely to remain in a Medicaid Assisted Treatment program for the duration of the time they remain in MARC treatment<sup>8</sup>; and
- Prolonged use of opioids leads to an increased risk of addiction.<sup>9</sup>

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<sup>3</sup> *Id.* at 4. Dr. Chaffin is specially trained to provide treatment for high-risk pregnancies and has published on the prevalence of drug use among pregnant West Virginian patients. *Id.*

<sup>4</sup> Chaffin Depo. Tr. At 11:25-12:1, attached hereto as Ex. A.

<sup>5</sup> *Id.* at 103:3-19.

<sup>6</sup> *Id.* at 13:23-14:25.

<sup>7</sup> *Id.* at 94:14-23.

<sup>8</sup> *Id.* at 24:11-25:2.

<sup>9</sup> *Id.* at 93:16-25.

## **B. Todd Davies, PhD**

Todd Davies, PhD is an Associate Professor and the Associate Director of Research and Development for the Division of Addiction Sciences in the Department of Family and Community Health at Marshall University's Jones C. Edwards School of Medicine.<sup>10</sup> He previously managed the Marshall Clinical Research Center, a hub for clinical trial activity at Marshall.<sup>11</sup> Todd Davies will present evidence and provide testimony regarding the opioid epidemic in Cabell County and the City of Huntington, including the incidence of overdose deaths, opioid use disorder, and neonatal abstinence syndrome locally, based on his personal knowledge and experience, consistent with the facts and opinions expressed during his deposition and in his September 15, 2020 Declaration, as summarized below:

- Based on “OUD Population at a Glance”, there are 7,627 individuals that have been diagnosed with OUD by the Cabell Huntington Hospital or Marshall Health Clinics, with addresses filtered to identify residents of Cabell County and the City of Huntington, based on a Marshall Health database that Dr. Davies has access to which identifies patients with an OUD diagnosis or who have failed multiple drug screens<sup>12</sup>;
- The opioid crisis has led to a rise in intravenous drug use, violent crimes, compromised health, negative economic impacts, an increase in behavioral health issues, health problems, and impacts on jobs and families in Huntington/Cabell County<sup>13</sup>;
- The local area's Appalachian setting affects the opioid epidemic<sup>14</sup>;

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<sup>10</sup> Davies Depo. Tr. at 6:22-7:2, attached as Ex. B.

<sup>11</sup> *Id.* at 12:5-22.

<sup>12</sup> *Id.* at 33:8-37:4, 108:23-119:5; Davies deposition, exhibit 11, “OUD Population at a Glance” (*see* Ex. B); and Declaration of Todd Davies, Ph.D. (*see* Ex. B).

<sup>13</sup> Ex. B., depo transcript at 50:17-52:4.

<sup>14</sup> *Id.* at 205:20-207:6.

- Huntington/Cabell County has experienced a dramatic increase in diseases related to drug use, such as endocarditis and hepatitis B and C, which are all known to increase with intravenous drug use<sup>15</sup>;
- The number of opioid overdose deaths in Cabell County increased dramatically over time<sup>16</sup>;
- NAS is a withdrawal syndrome that occurs shortly after birth due to the abrupt cessation of opioid delivery to the infant<sup>17</sup>;
- The number of children born with NAS in the local area has increased dramatically, the rate of NAS births is higher than the national average, and NAS is a critical issue with the local opioid epidemic<sup>18</sup>;
- NAS is related to harms such as physical and mental health problems in mothers<sup>19</sup>;
- Whether prescribed by a physician or obtained illegally, opioid addiction is a serious public health issue, one which affects pregnant women and their infants<sup>20</sup>;
- NAS babies require special care, including MAT, that goes beyond even what other NICU babies require<sup>21</sup>;
- MAT is offered by local providers and is successful but needs to be expanded, along with a more robust behavioral health system<sup>22</sup>;
- There is a need to rebuild social structures for individuals navigating through treatment and into long-term recovery in order to help them maintain their sobriety<sup>23</sup>;

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<sup>15</sup> *Id.* at 55:13-56: 21.

<sup>16</sup> *Id.* at 113:8-16, 121:11-127:16.

<sup>17</sup> *Id.* at 104:5-105:7.

<sup>18</sup> *Id.* at 73:4-89:12, 103:2-16.

<sup>19</sup> *Id.* at 89:20-98:22.

<sup>20</sup> *Id.* at 104:5-105:7.

<sup>21</sup> *Id.* at 102:14- 107:9.

<sup>22</sup> *Id.* at 38:1-41:10, 60:20-62:1, 63:24-68:9.

<sup>23</sup> *Id.* at 67:1-68:12.

- Successful recovery requires a social system which individuals can rely on support from sponsors alongside a community who promotes healthy behaviors to maintain any achieved progress<sup>24</sup>;
- Gathering information and conducting research about the local opioid epidemic, including collecting data on OUD, overdoses, and NAS, is critical to understand the epidemic and respond to it actively and effectively;<sup>25</sup> and
- Dr. Davies is involved with current ongoing research on opioids and NAS in the local community.<sup>26</sup>

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<sup>24</sup> *Id.* at 67:13-68:12.

<sup>25</sup> *See, e.g., id.* at 83:23-84:25.

<sup>26</sup> *Id.* at 154:18-162:2.



**C. Rahul Gupta, M.D., MPH, MBA, FACP**

Dr. Rahul Gupta served as the commissioner and state health officer for West Virginia from 2015-2018.<sup>27</sup> Under his tenure and at his direction, Dr. Gupta ordered a number of reports, including a historical overview report tracking West Virginia's opioid crisis from 2000 to 2015 and a 2016 overdose fatality analysis in West Virginia.<sup>28</sup> Dr. Gupta will present evidence and provide testimony on the subject matter of opioid addiction, diversion, the nature of the opioid epidemic and its effects in Cabell County and the City of Huntington, based on his personal knowledge and experience, and in conformance with the facts and opinions expressed during his deposition, as summarized below:

- Opiate prescription drugs, their volume, and the consequential addiction and other diseases associated with OUD rose by thousands of percent over a decade<sup>29</sup>;
- The amount of appropriate prescriptions was dwarfed by the amount of inappropriate prescriptions that were being diverted<sup>30</sup>;

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<sup>27</sup> See Dkt. 1055-1, at 6. Dr. Gupta is a practicing internist with 25 years of clinical experience. *Id.* Dr. Gupta has authored more than 125 peer-reviewed scientific publications in medicine and public health and served as a principal investigator for numerous well-known clinical trials. *Id.* Dr. Gupta is a national and global leader in transforming public health practice to advance health equity and create healthier communities. *Id.* at 7. In 2017, Dr. Gupta was named West Virginian of the Year for his work towards battling the opioid epidemic by the Pulitzer prize-winning Charleston Gazette-Mail. *Id.*

<sup>28</sup> Gupta Depo. Tr. at 96:6-10, attached as Ex. C. *See also id.* at 182:7-183:14 (introducing the West Virginia Drug Overdose Deaths Historical Overview 2001-2015 report as exhibit); *See id.* at 183:22-184:17 (introducing the 2016 West Virginia Overdose Fatality Analysis report as exhibit).

<sup>29</sup> *Id.* at 324:17-325:2.

<sup>30</sup> *Id.* at 150:12-151:5.

- There is a direct correlation between diverted prescription pills and the transition to using street drugs such as heroin, fentanyl, methamphetamine, etc.<sup>31</sup>;
- Once an addiction is formed, an individual struggling with addition will obtain the addictive substance by any means necessary, which often results in illegal activity and the use of illegal substances<sup>32</sup>;
- The IV drug use problem in Cabell County and the City of Huntington is an evolution of the prescription drug problem<sup>33</sup>;
- The HIV outbreak in Cabell County, as a result of IV drug use, is the second largest in the nation's history<sup>34</sup>;
- In Cabell County and the City of Huntington, the consequences of the oversupply and over-availability of prescription opioids has led to overdose deaths, and, more generally, communal suffering and devastating carnage<sup>35</sup>;
- The opioid epidemic has led to an increase in the number of children entering the foster care system, rapidly increasing child welfare costs to the state<sup>36</sup>;
- The opioid epidemic is a transgenerational crisis<sup>37</sup>;
- Because of the overwhelming number of overdose deaths in 2015, there was a need in West Virginia for air-conditioned trailers to house the bodies of those who had overdosed<sup>38</sup>;
- Although there was a 15-20% reduction in opioid prescriptions in 2015 and 2016, there was no reduction in overdose deaths because the addiction had already been formed, and people with opioid use disorder

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<sup>31</sup> *Id.* at 166:4-13.

<sup>32</sup> *Id.* at 105:1-18.

<sup>33</sup> *Id.* at 161:14-165:18.

<sup>34</sup> *Id.* at 97:2-13.

<sup>35</sup> *Id.* at 22:5-24.

<sup>36</sup> *Id.* at 45:3-11.

<sup>37</sup> *Id.* at 44:22-45:24.

<sup>38</sup> *Id.* at 131:1-21.

were turning to illicit, more lethal forms to feed their addictions that was initially formed by prescription opioids<sup>39</sup>;

- The increase in overdose deaths in West Virginia during that time was caused by the large volume of opioid pills that were originally deposited or delivered to West Virginia<sup>40</sup>;
- In 2016, a significant amount of the people who died from an overdose had filled a prescription within 30 days prior to their death<sup>41</sup>;
- Of the people who were incarcerated, released and subsequently died, the majority died of an overdose<sup>42</sup>;
- In 2016, it was found that those overdose decedents who went to three or more pharmacies to fill prescriptions were 70 times more likely to have died<sup>43</sup>;
- Three out of the four people that died of an overdose in 2016 tried to seek help within the year before their time of death<sup>44</sup>;
- NAS babies are a causative issue in terms of the opioid epidemic<sup>45</sup>;
- The overwhelming volume that was reaching the people of West Virginia was plainly involved in the killing of West Virginians every 12 hours around the clock<sup>46</sup>;
- Addiction tells people to seek opioids in one form, shape or other<sup>47</sup>;

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<sup>39</sup> *Id.* at 162:1-165:18.

<sup>40</sup> *Id.* at 167:24-168:8.

<sup>41</sup> *Id.* at 126:3-8.

<sup>42</sup> *Id.* at 126:3-14.

<sup>43</sup> *Id.* at 248:12-21.

<sup>44</sup> *Id.* at 126:9-14.

<sup>45</sup> *Id.* at 168:8-11.

<sup>46</sup> *Id.* at 43:6-11.

<sup>47</sup> *Id.* at 154:14-22.

- Chemically speaking, synthetic opioids, semi-synthetic opioids and prescription opioids work through the same receptors and feed the same need to the body<sup>48</sup>;
- Children diagnosed with at birth have noticeable difficulties learning and paying attention<sup>49</sup>; and
- As children with NAS enter the classroom, there will be noticeable, interruptive and impulsive behavioral issues.<sup>50</sup>

#### **D. Michael Kilkenny, M.D., MS**

Dr. Michael Kilkenny is Board Certified in Family Practice and has worked in academic, hospital, and private practice settings.<sup>51</sup> Dr. Kilkenny has 16 years of experience as a medical director in the Community Health Center system and is currently the Physician Director of the Cabell-Huntington Health Department, serving Cabell County and the city of Huntington, WV.<sup>52</sup> Dr. Kilkenny was instrumental in the development of West Virginia's first local health sponsored harm reduction and syringe exchange program in 2015.<sup>53</sup> He has also published various articles concerning opioid injection use in West Virginia.

Dr. Kilkenny will present evidence and provide testimony on the subject matter of opioid addiction and the opioid epidemic in Cabell County and the City of

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<sup>48</sup> *Id.* at 176:18-177:19.

<sup>49</sup> *Id.* at 168:13- 172:22.

<sup>50</sup> *Id.* at 171:7-18.

<sup>51</sup> *See* 1055.1 at 11.

<sup>52</sup> *Id.*

<sup>53</sup> *Id.* Dr. Kilkenny currently serves on several advisory panels for the West Virginia Department of Health and Human Resources, Bureau for Public Health. *Id.* He is a member of the Harm Reduction Coalition and serves on the advisory panels for the Governor's Advisory Council on Substance Abuse, Prevention and Treatment. *Id.*

Huntington including testimony concerning health assessments and issues facing Cabell County and the City of Huntington as well as resource allocation needs for the improvement of health outcomes in the community. Such testimony will be provided based on his personal knowledge and experience, and in conformance with the facts and opinions expressed during his deposition, as summarized below:

- Opioids carry the risk of abuse, the risk of psychological addiction, and the potential to be chemically addictive;<sup>54</sup>
- The vast majority of injection drug users started as oral prescription drug users;<sup>55</sup>
- Intravenous Drug Injections is the primary cause of systemic and deep tissue infections, HIV risk, Hepatitis C risk and/or overdose deaths;<sup>56</sup>
- A failure of oversight and violation of laws regarding distribution contributed to Opioid epidemic in Cabell and Huntington;<sup>57</sup>
- Based on the data in Cabell County, from 2015-2017 overdose deaths rose;<sup>58</sup>
- Overdose deaths declined with the increase of naloxone distribution;<sup>59</sup> and
- There is still an opioid epidemic in Cabell County and the City of Huntington.<sup>60</sup>

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<sup>54</sup> Kilkenny Depo at 99:4-99:6; 92:3-92:12, attached hereto as D.

<sup>55</sup> *Id.* at 75:14-75:16.

<sup>56</sup> *Id.* at 74:5-74:7.

<sup>57</sup> *Id.* at 119:16-119:21.

<sup>58</sup> *Id.* at 104:17-106:7.

<sup>59</sup> *Id.* at 104:17-106:7.

<sup>60</sup> *Id.* at 107:13-107:16.

### **E. Christina Mullins, M.A.**

Christina Mullins serves as the Commissioner for the West Virginia Department of Health and Human Resources (“DHHR”), Bureau for Behavioral Health.<sup>61</sup> Christina Mullins will present evidence and provide testimony on the subject matter of the opioid epidemic in Cabell County and the City of Huntington, including opioid addiction and deaths, and the impacts on the community, based on her personal knowledge and experience, and in conformance with the facts and opinions expressed during her deposition, as summarized below:

- The opioid crisis is on-going, and we may see a rise in overdose deaths yet again<sup>62</sup>;
- Prescription opioids had a significant impact on the overdose deaths in the state of West Virginia<sup>63</sup>;
- Every county and community in West Virginia has been impacted by the opioid crisis, and will be able to document some level of need<sup>64</sup>;
- There is an increase in prescribers utilizing MAT as well as those seeking treatment generally at comprehensive mental health centers<sup>65</sup>; and

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<sup>61</sup> See 1055.1 at 12-13. She previously served as the Director of DHHR’s Office of Maternal, Child and Family Health and worked in a variety of maternal and child health programs. *Id.* In her nearly 20-year tenure with DHHR, Commissioner Mullins has worked to establish West Virginia’s youth anti-tobacco campaign, collaborated with a multitude of partners to launch a surveillance system for neonatal abstinence syndrome, and co-authored the 2016 West Virginia Overdose Fatality Analysis. *Id.*

<sup>62</sup> Mullins Depo. Tr. at 142:11-143:2, attached as Ex. E.

<sup>63</sup> *Id.* at 154:9-12.

<sup>64</sup> *Id.* at 141:1-10.

<sup>65</sup> *Id.* at 76:21-78:11.

- Long term financial resources will be needed to deal with these public health crises (HIV, mental health issues, etc.) in the future.<sup>66</sup>
- The opioid crisis impacts the ability for family units to stay intact and the downstream consequences of infant separation and foster care involvement are concerning.<sup>67</sup>
- The devastation of the opioid epidemic in the community, including trauma associated with children losing their families of origin due to substance use disorder and other unknown consequences will impact generations of families; The community will have to continue dealing with the mental health trauma among other residual effects of this crisis.<sup>68</sup>

#### **F. Lyn O'Connell, PhD**

Dr. O'Connell assists with Marshall Health's and the City of Huntington's response to the substance use crisis through clinical services, grant writing, research and program development, implementation and oversight.<sup>69</sup> In 2018, Dr. O'Connell was appointed the Associate Director of Community Services in the Department of Family and Community Health's Division of Addiction Sciences at the Marshall University Joan C. Edwards School of Medicine and Marshall Health.<sup>70</sup> In this position, Dr. O'Connell provides leadership to efforts to address substance use, and its underlying causes, within the community.<sup>71</sup>

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<sup>66</sup> *Id.* at 150:1-150:14.

<sup>67</sup> *Id.* at 145:17-146:7.

<sup>68</sup> *Id.* at 147:15-148:5.

<sup>69</sup> *See* 1055.1 at 13. She also works with the City of Huntington on the advisory board of the Compass Project to promote resiliency in first responders and as the primary investigator for the Huntington Quick Response Team ("QRT"). *Id.*

<sup>70</sup> *Id.*

<sup>71</sup> Dr. O'Connell also engages in teaching, research, and providing clinical services. *Id.* at 14. Dr. O'Connell previously served as the Clinical Director of the Marshall University Screening, Brief Intervention, and Referral to Treatment (SBIRT)

Dr. O'Connell will provide testimony regarding her extensive work within the community and with Marshall University as well as her work on the Resiliency plan and The City of Solutions. In addition, Dr. O'Connell will present evidence and provide testimony on the subject matter of the opioid epidemic in Cabell County and the City of Huntington, including opioid addiction, the negative effects on infants, barriers to recovery, and the effects of the epidemic on the community based on her personal knowledge and experience, and in conformance with the facts and opinions expressed during her deposition, as summarized below:

- In the City of Huntington and Cabell County, negative effects of infants who are born with substance exposure, diagnosed as either neonatal abstinence symptoms or neonatal withdrawal symptoms are evident<sup>72</sup>;
- The necessary level of care and intervention for mothers overcoming SUD requires specific and tailored approaches<sup>73</sup>;
- There are an overwhelming amount of barriers to women in recovery , including transportation, insurance costs, childcare, residential treatment and capacity<sup>74</sup>;
- The opioid epidemic affects every individual who lives or works in the city and County and larger region as a result of the significant loss of human life, overdoses, the effect on the legal and housing system, health

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program. *Id.* She is also a member of the Marshall Substance Use Recovery Coalition, Healthy Connections Coalition, and chair of the Cabell County Substance Abuse Prevention Partnership. *Id.* She serves as chair of the Prevention Empowerment Partnership with United Way of the River Cities Program and is a member of the Marshall Substance Use Recovery Coalition as well as co-chair of the Healthy Connections Coalition. *Id.* Dr. O'Connell also serves as a member of the Faith Community United Steering Committee and an Advisory Board Member of the Bloomberg Compass Project for addressing compassion fatigue as a result of the opioid crisis. *Id.*

<sup>72</sup> O'Connell Depo. Tr. at 278:13-279:6, attached as Ex F.

<sup>73</sup> *Id.* at 63:19-64:14; 278:13-279:2.

<sup>74</sup> *Id.* at 280: 18- 281:19.



care system, first responders, the education system and financial standing of individuals within the community<sup>75</sup>; and

- There is a very short window to actively engage an individual with a substance use disorder.<sup>76</sup>

**G. Stephen Petrany, M.D.**

Stephen M. Petrany, M.D., is the chairman of the department of family and community health at the Joan C. Edwards School of Medicine, where has been a professor in the department and full-time faculty member since 1989.<sup>77</sup> Heavily involved with Ebenezer Medical Outreach, Dr. Petrany currently serves as its medical director and on its board of directors.<sup>78</sup> Dr. Petrany will provide testimony concerning components of the Resiliency plan, including the various needs of the community, research, education and engagement. He will also provide testimony with regard to opioid addiction in Cabell County and the City of Huntington and the relationship between prescription opioids and heroin use, based on his personal knowledge and experience, and in conformance with the facts and opinions expressed during his deposition, as summarized below:

- Many people who are now addicted to opioids turn to street drugs, such as heroin and others to satisfy their addiction; this often leads to overdose and death<sup>79</sup>;

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<sup>75</sup> *Id.* at 277:24-278:12.

<sup>76</sup> *Id.* at 281:5-14.

<sup>77</sup> *See* 1055.1 at 14.

<sup>78</sup> *Id.* at 15. He is also the co-director and co-developer of the Paul Wesley Ambrose Health Policy Residency Track, the nation's first health policy track within a family medicine residency program. *Id.*

<sup>79</sup> Petrany Depo Tr. at 173:17-174:15, attached as Ex. G.

- It takes communication and collaboration for a community to effectually address and epidemic of this magnitude<sup>80</sup>; and
- In responding to the opioid epidemic, community based and supported plans make for better programs and more effective solutions.<sup>81</sup>

#### **H. Kevin Yingling, RPh, M.D., FACP**

Dr. Kevin Yingling is Chairman of the Board of Directors for Cabell Huntington Hospital and a member of the Board of Health for Cabell County.<sup>82</sup> Dr. Yingling has been a registered pharmacist since 1981 and a licensed physician since 1990.<sup>83</sup> Dr. Yingling will present evidence provide testimony on the subject matter of the opioid epidemic in Cabell County and the City of Huntington, including opioid addiction, diversion, the relationship between opioid use and illegal drug use, and the economic and community burden caused by the epidemic, based on his personal knowledge and experience, and in conformance with the facts and opinions expressed during his deposition, as summarized below:

- Opioids were diverted and used by individuals with opioid use disorder and for nonmedical use<sup>84</sup>;
- There is biologic plausibility to the transference of addiction to opioids and opiates - synthetic or otherwise - that goes from an addiction to

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<sup>80</sup> *Id.* at 74:-23-74:24.

<sup>81</sup> *Id.* at 126:2-128:7.

<sup>82</sup> *See* 1055.1 at 16.

<sup>83</sup> *Id.* He was founding dean of the Marshall University School of Pharmacy. Dr. Yingling is also an associate professor of medicine and pharmacology and served more than 10 years as chairman of the Department of Internal Medicine at the Joan C. Edwards School of Medicine. *Id.* Dr. Yingling is certified by the American Board of Internal Medicine. *Id.*

<sup>84</sup> Yingling Depo at 92:5-93:6, attached as Ex. H.

prescription opioids, to the use and abuse of other products such as heroin, fentanyl, carfentanil, etc.<sup>85</sup>;

- The widespread availability of prescription opioids has led to the use of heroin and subsequent consequences from the burden addiction<sup>86</sup>;
- Prescription opioid addiction and abuse is also a primary gateway for methamphetamine use in Cabell County<sup>87</sup>;
- The loss of economic value to families, the tragedies, the psychosocial trauma, and other outcomes from the opioid epidemic will be borne out by this community for decades. This will be a generational burden for Cabell County and Huntington<sup>88</sup>;
- There exists an economic and community burden for raising children who have been affected by the opioid epidemic. As a result of opioid, addiction, overdose and death, many children do not have families to raise them and will end up foster homes. As these children move into the primary education system, that burden will intensify<sup>89</sup>; and
- The addicted populations who are not in long-term recovery cause a great deal of the challenges for local law enforcement to face.<sup>90</sup>

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<sup>85</sup> *Id.* at 148:21-149:6.

<sup>86</sup> *Id.* at 149:13-149:19.

<sup>87</sup> *Id.* at 150:11-150:15.

<sup>88</sup> *Id.* at 140:16-140:21.

<sup>89</sup> *Id.* at 141:9-141:18.

<sup>90</sup> *Id.* at 143:13-143:18.

Dated: October 30, 2020

**THE CITY OF HUNTINGTON**

/s/ Anne McGinness Kears

Anne McGinness Kears (WVSB No 12547)  
Joseph F. Rice  
**MOTLEY RICE LLC**  
28 Bridgeside Blvd.  
Mount Pleasant, SC 29464  
Tel: 843-216-9000  
Fax: 843-216-9450  
akearse@motleyrice.com  
jrice@motleyrice.com

Linda Singer  
David I. Ackerman  
**MOTLEY RICE LLC**  
401 9th Street NW, Suite 1001  
Washington, DC 20004  
Tel: 202-232-5504  
Fax: 202-386-9622  
lsinger@motleyrice.com  
dackerman@motleyrice.com

Charles R. "Rusty" Webb (WVSB No. 4782)  
**The Webb Law Centre, PLLC**  
716 Lee Street, East  
Charleston, West Virginia 25301  
Telephone: (304) 344-9322  
Facsimile: (304) 344-1157  
rusty@rustywebb.com

Respectfully submitted,

**CABELL COUNTY COMMISSION**

/s/ Paul T. Farrell Jr.

Paul T. Farrell, Jr. (WVSB Bar No. 7443)  
**FARRELL LAW**  
422 Ninth Street, 3rd Floor (25701)  
PO Box 1180  
Huntington, West Virginia 25714-1180  
Mobile: 304-654-8281  
[paul@farrell.law](mailto:paul@farrell.law)

/s/ Anthony J. Majestro

Anthony J. Majestro (WVSB No. 5165)  
**POWELL & MAJESTRO, PLLC**  
405 Capitol Street, Suite P-1200  
Charleston, WV 25301  
304-346-2889 / 304-346-2895 (f)  
[amajestro@powellmajestro.com](mailto:amajestro@powellmajestro.com)

Michael A. Woelfel (WVSB No. 4106)  
**WOELFEL AND WOELFEL, LLP**  
801 Eighth Street  
Huntington, West Virginia 25701  
Tel. 304.522.6249  
Fax. 304.522.9282  
[mikewoelfel3@gmail.com](mailto:mikewoelfel3@gmail.com)

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF WEST VIRGINIA

CITY OF HUNTINGTON,

Plaintiff,

v.

AMERISOURCEBERGEN DRUG  
CORPORATION, *et al.*,

Defendants.

Civil Action No. 3:17-cv-01362

CABELL COUNTY COMMISSION,

Plaintiff,

v.

AMERISOURCEBERGEN DRUG  
CORPORATION, *et al.*,

Defendants.

*Consolidated case:*

Civil Action No. 3:17-01665

Hon. David A. Faber

**CERTIFICATE OF SERVICE**

I certify that on October 30, 2020, a copy of the **Certificate of Service** for **Plaintiffs' Supplemental Federal Rule Civil Procedure 26(a)(2)(c) Disclosures** was filed electronically. Notice of this filing will be sent to all parties by operation of the Court's electronic filing system. Parties may access this filing through the Court's system. Plaintiffs' Supplemental Federal Rule Civil Procedure 26(a)(2)(c) Disclosures will be served on all parties by email to: [Track2OpioidDefendants@ReedSmith.com](mailto:Track2OpioidDefendants@ReedSmith.com) and [MDL2804Discovery@motleyrice.com](mailto:MDL2804Discovery@motleyrice.com).

*s/ Anthony J. Majestro*

Anthony J. Majestro (WVSB 5165)

Ex A – Deposition Excerpts of David G. Chaffin, Jr., M.D., dated 07/29/2020

Plaintiffs' Supplemental Federal Rule Civil Procedure 26(a)(2)(C) Disclosures

1 UNITED STATES DISTRICT COURT  
2 SOUTHERN DISTRICT OF WEST VIRGINIA

3 THE CITY OF HUNTINGTON, )  
4 Plaintiff, )  
5 vs. ) Civil Action  
6 AMERISOURCEBERGEN DRUG ) No. 3:17-01362  
7 CORPORATION, et al., )  
8 Defendants. )  
9  
10 CABELL COUNTY COMMISSION, )  
11 Plaintiff, ) Civil Action  
12 vs. ) No. 3:17-01665  
13 AMERISOURCEBERGEN DRUG )  
14 CORPORATION, et al., )  
15 Defendants. )

16 WEDNESDAY, JULY 29, 2020

17 HIGHLY CONFIDENTIAL - SUBJECT TO FURTHER  
18 CONFIDENTIALITY REVIEW

19 - - -

20 Remote videotaped deposition of  
21 David G. Chaffin, Jr., M.D., held at the  
22 location of the witness in Huntington, West  
23 Virginia, commencing at 9:10 a.m., on the  
24 above date, before Carrie A. Campbell,  
25 Registered Diplomat Reporter and Certified  
Realtime Reporter.

- - -

23 GOLKOW LITIGATION SERVICES  
24 877.370.3377 ph | 917.591.5672 fax  
25 deps@golkow.com

1 medicine in the Cabell-Huntington area, do  
2 you have an opinion within a reasonable  
3 degree of medical probability whether or not  
4 there exists a public health crisis in  
5 Cabell-Huntington in relationship to opioid  
6 use?

7 MS. RUSSO: Objection to form.

8 QUESTIONS BY MS. WILDE:

9 Q. You can answer.

10 MR. JONES: I'd like to briefly  
11 interject with perhaps not so much of  
12 an objection but an observation.

13 Dr. Chaffin is here as a fact  
14 witness. He's not a retained expert.  
15 To my knowledge, he's not been  
16 compensated as an expert of any  
17 testimony.

18 So I would direct him to answer  
19 this question and the line of  
20 questions to the extent that he has  
21 personal knowledge of the facts.

22 MS. WILDE: Yes. And if I  
23 didn't make that clear, that is what I  
24 want, Dr. Chaffin.

25 THE WITNESS: Okay. Has there



1           been a marked increase in opiate  
2           addiction since I joined the staff in  
3           1998? And the answer is yes.

4   QUESTIONS BY MS. WILDE:

5           Q.       And if you can, Dr. Chaffin,  
6           tell me a little bit about that.

7                    When and what have you  
8           observed?

9           A.       That's kind of broad. I'm not  
10          sure what you're asking.

11          Q.       Sure.

12                   You said that you had noticed a  
13          marked increase of opioid use and addiction.

14                   When would you say that you  
15          began to notice, if you can pinpoint -- and  
16          if you can't, just give me a broad, general  
17          time frame. When did you start to see this  
18          or make these observations?

19          A.       When I joined and probably the  
20          first four years of my tenure at Marshall, I  
21          would have between two and four patients in a  
22          methadone program per year.

23                   And then early 2000s, we  
24          started to see an increase in the frequency,  
25          and it has been a steady increase since that

1 time.

2 Q. Do you still, Doctor -- again,  
3 based on your observations of the area, is  
4 there still an increase? Has it plateaued?  
5 It has it begun to decrease? Have you made  
6 any observations regarding that?

7 A. I have to qualify when I  
8 started a formal medication-assisted therapy  
9 program in 2012, and probably for four years  
10 after that there was still a steady increase.

11 I started the program because  
12 there was nobody else taking care of pregnant  
13 patients with opiate addiction. Now there  
14 are multiple, many providers.

15 And so what I can tell you, my  
16 observation is that in my practice, the  
17 number of people I have in my practice, has  
18 plateaued or slightly decreased. But I don't  
19 know what that means about the area  
20 incidence, because I no longer take care of  
21 everybody that has an opiate addiction, which  
22 I did at one time.

23 Q. In 2012, what was happening in  
24 Cabell-Huntington such that you felt the  
25 necessity to open medication --

1 methadone-assisted treatment?

2 A. It had become quite clear that  
3 Subutex was a very reasonable treatment for  
4 opiate addiction. There were no Subutex  
5 programs available to pregnant patients.  
6 Everybody that got pregnant was removed from  
7 whatever Subutex program they was in. So I  
8 was not able to find other people to take  
9 care of Subutex patients, and so I started  
10 that program.

11 Q. And obviously there was a  
12 medical need for it in the community at this  
13 point?

14 A. There were. We ran a steady  
15 census of 35 to 40 patients at all times for  
16 the first, oh, I don't know, six or eight  
17 years.

18 Q. And just to jump back a little  
19 bit, and that's in comparison to the two to  
20 four, I believe you said, when you first  
21 started there in 1998?

22 A. Yes. Two to four per year,  
23 total. And so realize that 30 -- 35 to 40  
24 patients was -- they would deliver; we'd  
25 immediately fill the program back.

1 MARC would ask.

2 Since that time, it has been  
3 less an important aspect. And so for the  
4 last seven years or so or six years, five to  
5 six years, we haven't -- we haven't pursued  
6 how they got started.

7 Q. And this is just a -- my own  
8 edification. Does it matter for purposes of  
9 treatment?

10 A. No.

11 Q. All right. Do these programs  
12 work? Does MARC work?

13 A. You have to define what "work"  
14 means.

15 So if you ask do we have less  
16 use of street drugs and risky behavior, the  
17 answer is yes.

18 If somebody is -- comes through  
19 the MARC, is successful in the MARC, the baby  
20 is born with Subutex on board, the withdrawal  
21 period, the time needed to treat, is shorter.

22 Patients who successfully  
23 complete MARC at the time of delivery are  
24 more likely to remain in a medication-  
25 assisted treatment program for the duration

1 of the time that I know about, which is six  
2 weeks postpartum.

3 Q. Are there programs for the --  
4 after the six weeks postpartum that you're  
5 familiar with, that for the --

6 A. Yes.

7 Q. Yeah.

8 Tell me about those, please.

9 A. So Cabell-Huntington runs one  
10 for patients postpartum as well as patients  
11 who come in unattached and not on any other  
12 program. And it runs -- I think it's  
13 100 days postpartum. And then, of course,  
14 there's PROACT.

15 Q. Do you know the name of the  
16 first one, the 100 days postpartum?

17 A. Yeah, but you're going to ask  
18 me what the acronym means, and I can't  
19 remember. But we call it the MOMS program.

20 Q. Okay. Again, and it's --  
21 you're going to tell me it's according to how  
22 I define successful, so let me ask you,  
23 Dr. Chaffin: Based on your experience and  
24 your observations, are those programs  
25 successful? Are they reducing the harm to

1 pills came from. You don't know if those  
2 pills were from a prescription or from the  
3 street or from a friend's drug cabinet,  
4 correct?

5 A. Correct.

6 Q. And there's also opioids that  
7 are completely street drugs, like heroin,  
8 correct?

9 A. Correct.

10 Q. And you agree that as a  
11 physician who prescribes opioids, that there  
12 are benefits and risks that you weigh when  
13 making a determination whether or not to  
14 write an individual prescription?

15 A. Yes.

16 Q. And are you aware of the risks  
17 associated with opioid use?

18 A. Yes.

19 Q. And what are those risks?

20 A. Obviously everybody has a  
21 potential for allergic reaction. There's  
22 oversedation and problems associated with  
23 that. There's a risk of overdose with  
24 respiratory depression and, with prolonged  
25 use, the risk of addiction.

1 Q. And you believe that opioids  
2 continue to have a legitimate medical use  
3 today?

4 A. Yes.

5 Q. And you believe that opioids  
6 can be safe and effective treatment for  
7 long-term pain if a patient takes it in  
8 accordance with a doctor's prescription?

9 A. Yes.

10 Q. Did you say yes?

11 A. Yes.

12 Q. Okay. Sorry, you dropped off a  
13 little bit.

14 What is your understanding of  
15 the opioids that are being used in Cabell  
16 County today?

17 A. I can't speak for the county.  
18 In my practice, 90 percent of the patients  
19 are abusing heroin. Of the opiate use  
20 patients.

21 Q. And then in 2012, 90 percent of  
22 your patients were addicted to opioid pills?

23 A. Correct.

24 Q. And we don't know the source of  
25 those opioid pills?

1 Bates 193, part of your biographical sketch.

2 A. Uh-huh.

3 Q. Would you have written this  
4 document?

5 A. I did.

6 Q. Okay. So it was accurate at  
7 the time you drafted it?

8 A. Yes.

9 Q. And so this would have been in  
10 2017. Would you have made sure that the  
11 personal statement was accurate as of 2017?

12 A. Yes.

13 Q. And so it says here, "Over the  
14 last seven to eight years, West Virginia has  
15 been dealing with an ever-accelerating  
16 epidemic of opiate use disorder, and opiate  
17 addiction has become the single-most common  
18 comorbidity in pregnancy."

19 A. Correct.

20 Q. Did I read that correctly?

21 A. Yes.

22 Q. And then "in the hospital where  
23 I practice" --

24 And that's Cabell Huntington  
25 Hospital?



Ex B – Deposition Excerpts of Todd Davies, Ph.D., dated 07/28/2020

Plaintiffs' Supplemental Federal Rule Civil Procedure 26(a)(2)(C) Disclosures

1 UNITED STATES DISTRICT COURT  
2 SOUTHERN DISTRICT OF WEST VIRGINIA

3 CITY OF HUNTINGTON,  
4 WEST VIRGINIA,

5 Plaintiff,

6 vs. CASE NO. 3:17-cv-01362

7 AMERISOURCEBERGEN DRUG  
8 CORPORATION, et al.,  
9 Defendants.

10 CABELL COUNTY COMMISSION,  
11 Plaintiff,

12 vs. CASE NO. 3:17-cv-01665

13 AMERISOURCEBERGEN DRUG  
14 CORPORATION, et al.,

15 Defendants.

16 HIGHLY CONFIDENTIAL - SUBJECT TO FURTHER  
17 CONFIDENTIALITY REVIEW

18 WITNESS: TODD DAVIES, Ph.D.

19 The remote videotaped deposition of  
20 Todd Davies, Ph.D. was remotely taken before  
21 Janine N. Leroux, Stenographic Court Reporter on  
22 Tuesday, July 28, 2020, commencing at the  
23 approximate hour of 8:14 a.m. Said deposition  
24 was taken for purposes of discovery, for use at  
25 trial, or for such other purpose under the Federal  
Rules of Civil Procedure.

1 THE COURT REPORTER: Thank you.

2 THEREUPON:

3 TODD DAVIES, Ph.D.,  
4 the witness, after being first duly sworn, was  
5 examined and testified as follows:

6 DIRECT EXAMINATION

7 BY MR. BURNETT:

8 Q All right. Good morning, Dr. Davies.

9 A Good morning.

10 Q So my name is David Burnett. I'm  
11 appearing from Motley Rice on behalf of the  
12 Plaintiffs in this litigation. Thank you for  
13 appearing under strange circumstances.

14 This is my first time doing a remote  
15 deposition, but I think we've worked out the  
16 kinks, so hopefully this will all go smoothly. So  
17 we appreciate you being here, taking the time and  
18 appearing remotely.

19 Could you start by telling us your  
20 name, your full name and your current professional  
21 position?

22 A My name is Todd Davies. I'm an  
23 Associate Professor and the Associate Director of  
24 Research and Development in the Division of  
25 Addiction Sciences and the Department of Family

1 and Community Health at Marshall University's Joan  
2 C. Edwards School of Medicine.

3 Q Thank you.

4 Now, just briefly, I assume Joel told  
5 you about this, but just to run through very  
6 quickly a few background points. You understand  
7 that you are under oath today?

8 A I do understand that.

9 Q Okay. Are you represented by counsel  
10 today?

11 A I am. That's Mr. Jones.

12 Q Who is your -- who is your counsel?

13 A Mr. Jones.

14 Q Okay. Have you been deposed before?

15 A No, sir.

16 Q Okay. Well, we'll work together to  
17 make this as smooth as possible.

18 So you understand that you need to  
19 respond verbally, not by nodding your head, so  
20 that the court reporter can record your words as  
21 you speak them, correct?

22 A That makes sense, yes.

23 Q Okay. And if you need a break, just  
24 let me know. We can take a break whenever you  
25 need it, just not while a question is pending.

1 a minute if you need to to review this language.

2 A Okay.

3 Q Did you -- did you write this language?

4 A Did I write it? I did write it.

5 Q Okay. So is that -- is that a fair  
6 description of what your role was as Director of  
7 Research and -- Director of Research, Development  
8 and Translation?

9 A Yes. Yeah.

10 Q Okay. And you have had that role until  
11 a year and a half ago?

12 A Yes, sir.

13 Q And when did you start that role?

14 A I started that role April 2013.

15 Q Okay. Is that when you joined  
16 Marshall?

17 A Yes, sir.

18 Q Okay. So the first -- the first  
19 sentence says, "I direct and manage the Marshall  
20 Clinical Research Center, a newly developed hub  
21 for clinical trial activity at Marshall." Do you  
22 see that?

23 A I do.

24 Q When was that research center created?

25 A Well, I -- I and Todd Gress created it

1 right?

2 A Well, that's what they hired me for, so  
3 I would hope so.

4 Q Yeah. Okay.

5 So you -- you've mentioned some terms,  
6 so I'd like to ask you what is your definition of  
7 those terms just so we're all on the same page.  
8 What is opioid use disorder?

9 A So -- well opioid -- so opioid use  
10 disorder, I don't have the DSM-5 in front of me,  
11 but it's a specific disease diagnosis that  
12 involves use of opiates, dependence and then  
13 there's cravings on top of that. I don't remember  
14 the exact definition based on the DSM-5. That's  
15 probably the better place to get that definition.  
16 But when I say opioid use disorder, I'm talking  
17 about specific diagnoses.

18 The same in substance use disorder,  
19 right? There's a specific diagnosis, there's a --  
20 there's a --

21 THE COURT REPORTER: Can you slow down a  
22 little bit? You're kind of getting me off  
23 track here.

24 THE WITNESS: Oh, I'm sorry.

25 THE COURT REPORTER: Sorry. I've got to

1 write it down, and it's rough sometimes.

2 Thank you.

3 THE WITNESS: Okay. I'll slow down.

4 THE COURT REPORTER: Thanks.

5 A So -- so opioid use disorder, substance  
6 use disorder, anything where it says use disorder,  
7 those are specific diagnoses, and they have -- and  
8 they have a definition of those.

9 We do -- when we do research and we  
10 pull somebody's information out of the medical  
11 record, if I say they have opioid use disorder,  
12 that means they have a specific diagnosis of  
13 opioid use disorder, unless I otherwise define it,  
14 right, within our -- within our -- our graphs or  
15 whatever we are doing.

16 So when we look at opioid use disorder,  
17 we may say, we're going to count, in this  
18 case opioid use disorder, as specific  
19 diagnosis of opioid use disorder, and we may  
20 include in that likely opioid use disorder in  
21 which they have, you know, a number of failed  
22 or non-compliant drug screens without the --  
23 without a prescription of an opiate.

24 So it -- it depends project-to-project,  
25 but when I say opioid use disorder, generally

1 I mean the specifically diagnosed opioid use  
2 disorder.

3 Q Okay. What is the difference between  
4 opioid use disorder and substance use disorder?

5 A Well, opioid use disorder is a  
6 substance use disorder, so it's just a specific --  
7 we're just specifically designing -- defining the  
8 chemical of dependency.

9 Q So substance use disorder is broader,  
10 correct?

11 A Yes.

12 Q So substance use disorder, could that  
13 involve any substance that is misused?

14 A Technically, yes.

15 Q And opioid use disorder, would that  
16 involve both prescription and illicit opioids?

17 A Yes.

18 Q You referred to a diagnosis for opioid  
19 use disorder. How is -- how is that diagnosed?

20 A There are specific criteria in -- in  
21 the DSM-5 code. It can be diagnosed by a  
22 physician, or it can be diagnosed by an  
23 appropriate licensed psychologist or therapist.

24 Q Do you know generally what criteria  
25 they -- they look at -- look at for such a



1 diagnosis?

2 A I'm not a clinician, so I'm not going  
3 to say. You're going to have to ask them.

4 Q Okay. That's fine.

5 You referred to likely diagnosis  
6 through failed drug tests. Can you explain that  
7 further?

8 A Well, some -- a lot of times we do that  
9 to try and look at, you know, what -- who may be  
10 missed in -- in the population. So if -- if we  
11 don't -- if we think maybe there's -- the  
12 population is being under-diagnosed, then we'll  
13 look at criteria that would trigger a -- a  
14 diagnosis based on specific criteria. So people  
15 who have numerous failed opioid drug screens but  
16 they -- they don't have a prescription for an  
17 opiate, clearly, there's a -- there's a misuse  
18 issue.

19 And then when you look at multiple  
20 steps, that means they are at high risk for opioid  
21 use disorder although they have not been  
22 specifically diagnosed with that.

23 Q So is it fair to say that the number of  
24 people that have been diagnosed with opioid use  
25 disorder is smaller than the total number of

1 people that have opioid use disorder?

2 A Based on the data that we've seen and,  
3 you know, the data that I looked at, I think  
4 that's likely.

5 Q And that's because not everyone is  
6 diagnosed by a doctor or a clinician?

7 A Not everyone is -- not everyone is  
8 diagnosed by the appropriate licensed  
9 professional.

10 Q Right. Okay. You referred to neonatal  
11 abstinence syndrome, what is -- what is that?

12 A So neonatal abstinence syndrome is a  
13 withdrawal symptomology from -- in newborn  
14 neonates that have been prenatally exposed, so  
15 they have been exposed to some sort of neuroactive  
16 substance in utero.

17 Typically, it's associated with -- with  
18 opiates, although that has been sort of  
19 reclassified into neonatal opiate withdrawal  
20 syndrome, NOWS, but it's -- it's that  
21 symptomology, it's that withdrawal symptomology,  
22 where the neonate shows dependence on a drug  
23 and whatever neuroactive substance and is then --  
24 demonstrates withdrawal symptoms.

25 Q Okay. Thank you.

1                   And you referred to MAT, or medically  
2           assisted treatment I believe is -- is the term, is  
3           that right?

4           A       Medication-assisted treatment.

5           Q       Right. What is medication-assisted  
6           treatment?

7           A       So when you -- when you -- when folks  
8           are treated with addictions, so we look at the  
9           treatment, and the treatment is the psychosocial,  
10          it's -- it's the cognitive behavioral therapy.  
11          It's the, you know, recreation of healthy social  
12          systems. It's all of the behavior -- you know,  
13          opioid use disorder, substance use disorder are  
14          behavioral health issues. And so it's that  
15          behavioral health portion is the treatment.

16                   Now, some folks have trouble  
17          stabilizing their dopamine system. So if you  
18          don't have a healthy dopamine system, then it --  
19          it's hard to be receptive to cognitive behavioral  
20          therapy. There's the high -- you know, high level  
21          of relapse for -- for those individuals, and so  
22          what you have is either methadone or buprenorphine  
23          is used. They're opiates. They're -- methadone  
24          is an agonist/antagonist. Buprenorphine is a  
25          partial agonist/partial antagonist. Or you have

1 Vivitrol, which is an antagonist opioid therapy,  
2 that you use to help stabilize these patients in  
3 terms of their dopamine system, so the cognitive  
4 behavioral therapy is more effective.

5 Q Okay. So to summarize then, MAT is one  
6 way of addressing opioid use disorder?

7 A It's a pharmacologically-assisted  
8 treatment for opioid use disorder.

9 Q Right. In your opinion, is MAT  
10 effective in treating opioid use disorder?

11 A Well -- and, you know -- yeah.

12 MR. JONES: Before you move on, this  
13 isn't necessarily an objection but an  
14 observation. You know, Dr. Davies is here as  
15 a fact witness. He's not a retained expert.

16 MR. BURNETT: Yeah. Yeah.

17 MR. JONES: He's not here to opine on  
18 expert matters for trial purpose. So --

19 MR. BURNETT: Sure. That's fair.

20 MR. JONES: -- if you can, let's try and  
21 just keep it to fact matters to the best --  
22 the best of our ability.

23 MR. BURNETT: That's fair. Yep.

24 BY MR. BURNETT:

25 Q Dr. Davies, are you familiar with local

1 MET resources in the Cabell Huntington area?

2 A I am fairly familiar, yes.

3 Q Just, you know, broadly speaking,  
4 what -- what are -- what are the main avenues to  
5 obtain MAT locally?

6 A Well, you've got PROACT, which is  
7 the -- which is a collaboration between Marshall  
8 Health and Valley Health where you get a  
9 buprenorphine MAT. There's the Huntington  
10 Comprehensive Treatment Center where you can get  
11 methadone or a buprenorphine MAT. I think both of  
12 them provide some Vivitrol. There's -- there's a  
13 couple of other agencies.

14 Recovery Point has just opened a  
15 behavioral health center where they provide  
16 Vivitrol-based medications, just the treatment.  
17 Those are the primary sources.

18 Presteria Center, we can't forget them.  
19 They're a licensed behavioral health center in --  
20 in the community. They provide I think all three  
21 MAT depending on -- on the -- on the sources.  
22 Although their specialty is really the compound  
23 issues where people have multiple behavioral  
24 health issues.

25 Q Okay. And based on your understanding,

1 is it fair to say that those outlets need more  
2 resources so they are able to provide more care to  
3 more people?

4 A Well, I mean I'm not in their books,  
5 but they all say they do.

6 Q Right. Okay. So in addition to  
7 providing MAT, do those outlets also provide  
8 counseling and other forms of therapy?

9 A Of course. I mean that's -- you can't  
10 have MAT without counseling.

11 Q Right. Okay. Is it your view that  
12 there is an opioids epidemic in the Cabell  
13 Huntington area currently?

14 MS. RUSSO: Objection to form.

15 THE WITNESS: I don't know, what is  
16 that?

17 MR. JONES: Defense counsel objected to  
18 the form of the question, but you can answer  
19 the question.

20 THE WITNESS: Okay. Sorry.

21 A I just -- well, I mean it -- you have  
22 to -- first, you have to define what -- what  
23 epidemic is, right?

24 Q Sure.

25 A Is there a -- is there a -- a higher

1 A I do see it.

2 Q Is that consistent with your  
3 understanding of the local situation with regard  
4 to opioids?

5 MS. RUSSO: Objection to form.

6 A Okay. So -- I mean but that's --  
7 that's my understanding, but my understanding  
8 comes from the same sources that are cited in  
9 this -- in this publication.

10 Q Sure. Okay.

11 THE COURT REPORTER: Mr. Burnett, could  
12 you read a little slower when you're reading,  
13 please.

14 MR. BURNETT: Yes, will do.

15 THE COURT REPORTER: Thanks.

16 BY MR. BURNETT:

17 Q The next paragraph starts: "This  
18 crisis, however, goes beyond overdoses." It  
19 continues: "The devastation from the opioid  
20 crisis extends to rising violent crimes,  
21 compromised health and negative economic impacts.  
22 About 10 percent or 12,000 residents of Cabell  
23 County, West Virginia, where Huntington and  
24 Amazon's customer service center is located, are  
25 intravenous drug users." Do you see that

1 language?

2 A I do.

3 Q And is that all consistent with your  
4 understanding as well?

5 A I think that's -- it's an accurate  
6 estimate, as accurate as you can get about the  
7 number of intravenous drug users and -- and  
8 clearly opioid use disorder and -- and substance  
9 use disorder does -- I mean is -- is fairly  
10 well-known to create increase in crimes, increase  
11 in violent crimes, increase in -- in associated  
12 health issues.

13 Q Okay. What are those associated health  
14 issues that are associated with opioid use  
15 disorder?

16 A Well, there's -- there's an increase in  
17 behavioral health issues that's been pretty well  
18 laid -- laid out in -- in the literature. We're  
19 still unclear what percentage of the population  
20 started with behavioral health issues and then  
21 became more severe with substance use and how many  
22 of them with behavioral health issues were created  
23 due to the substance use. That's -- that's really  
24 unclear. I don't think anybody has -- has vetted  
25 that out very well. It's one of those things we'd



1       like to know.

2                   There's -- with intravenous drug use,  
3       obviously, there's -- there's a lot involved in  
4       things like endocarditis and -- and infections.  
5       There are nutritional issues, nutritional  
6       deprivation that happens with opioid use disorder.

7                   And that's -- and then you have the  
8       behavioral aspects of it where you can have loss  
9       of job, loss of family. You know, we all depend  
10      very much on our social structure. Our -- our  
11      cognitive abilities are dependent on dopamine  
12      function in the prefrontal cortex, and all of that  
13      is inhibited, so it creates a bit of a cascade  
14      effect in -- in terms of their personal lives.  
15      And so just a matter of -- of the families  
16      breaking up and increased anxiety, increased  
17      depression, increased number of poor health  
18      behaviors, poor eating habits, all of that stems  
19      and is -- and is -- is pretty well-known to be  
20      potentiated through opioid use -- or opioid  
21      misuse, I should say.

22                  Q       Okay. So all of those behavioral and  
23      medical problems you just described arise from  
24      opioid use disorder?

25                  A       Depends on what you mean by arise.

1 addiction, typically opioid addiction.

2 Q I didn't ask this earlier, but how long  
3 have you lived in the area?

4 A Since April of 2013.

5 Q Okay. Do you live in Cabell County?

6 A I do not.

7 Q Where do you live?

8 A I live in Lawrence County, Ohio, which  
9 is an adjacent county.

10 Q Okay. Fair to say you spend a lot of  
11 time in the City of Huntington and Cabell County?

12 A That's fair to say, yeah.

13 Q Okay. All right. So turning back to  
14 the -- the document, the end of the paragraph that  
15 we were looking at says, "The community has  
16 experienced a dramatic increase in diseases  
17 related to drug use, such as bloodstream  
18 infections and Hepatitis C resulting in a  
19 healthcare community which struggles just to keep  
20 up with the volume of patient care."

21 "The Centers for Disease Control has  
22 also identified the area as at-risk for Hepatitis  
23 C and HIV outbreaks due to the opioid crisis with  
24 the second highest rate of Hepatitis C infections  
25 and highest rate of new Hepatitis B infections in

1 the nation."

2 A Uh-huh (affirmative).

3 Q Do you see that language?

4 A I do see that language.

5 Q And is that consistent with your  
6 understanding?

7 A The data is very supportive of that  
8 statement.

9 Q So it's fair to say that hepatitis and  
10 HIV -- well, or at least Hepatitis C and  
11 Hepatitis B, those infection rates are -- are on  
12 the extreme high end nationally, correct?

13 A I believe that to be accurate. I  
14 haven't looked at the Hep C numbers in a --  
15 probably six months or so. But, yeah, that's -- I  
16 mean from what I know, that's very accurate.

17 Q Okay. And those numbers are related to  
18 intravenous drug use, correct?

19 A Hep C transmission, Hep B transmission,  
20 HIV transmission are all known to increase with  
21 intravenous drug use. Uh-huh (affirmative).

22 Q Okay. The next paragraph refers to:  
23 "Newborns suffering from neonatal abstinence  
24 syndrome, to children thrown into foster care, to  
25 adolescents and young adults increasingly turning

1           A       Well, primarily, from what I  
2       understand, from what I've been told directly from  
3       people who are working in CPS and people who are  
4       working specifically in Child and Family, the  
5       primary reason for the children being moved into  
6       the foster care system is neglect associated with  
7       substance use disorder.

8           Q       And you said that opioid use disorder  
9       is a subset of substance use disorder, correct?

10          A       It's -- it's primarily. I mean when we  
11       look at the data and we look across the agencies  
12       where we collect data, the majority of individuals  
13       with substance use disorder are in fact opioid use  
14       disorder.

15          Q       Okay.

16          A       And then we had a lot of polysubstance.  
17       SO even those who started with amphetamine use  
18       disorder now have both amphetamine use disorder  
19       and opioid use disorder and vice versa.

20          Q       Okay. So a -- a lot of children that  
21       go into foster care, you're saying that's because  
22       there is neglect related to opioid use disorder?

23          A       That's true.

24          Q       Okay. And for some of those children,  
25       their parents have also passed away from opioid

1 overdoses, correct?

2 A Some of them. I -- I can't tell you  
3 what percentage.

4 Q Sure. And for some of them, their  
5 parents may be incarcerated related to their  
6 opioid use, correct?

7 A They may -- they may have died of  
8 overdose. They may be incarcerated. They may  
9 just not be emotionally available, right?  
10 They may -- they may just be neglectful because  
11 they're more -- they're consumed within that  
12 opioid use disorder and within those -- those  
13 cravings, and they haven't been able to -- we  
14 haven't been able to get them into a treatment  
15 program yet where they can start rebuilding their  
16 life.

17 Q Okay. And that's because those  
18 treatment programs are -- are all fully booked up?

19 A Oh, every time we build a new treatment  
20 program, it fills up so...

21 Q So there is -- there is -- there is  
22 more demand for treatment locally than there are  
23 facilities to -- to address it?

24 A We are -- we are in the process of --  
25 of measuring that exact thing, but preliminarily,

1 I would say, yes, for sure.

2 Q Okay.

3 THE VIDEOGRAPHER: Sorry for the  
4 interruption. This is the videographer. Can  
5 we take a break real quick?

6 MR. BURNETT: Yeah. We've been --

7 THE VIDEOGRAPHER: I just want to  
8 address --

9 MR. BURNETT: We've been going an hour  
10 and a half so this -- we can -- you know, if  
11 everyone wants, we can take a five or  
12 ten-minute break.

13 MS. RUSSO: Okay.

14 THE VIDEOGRAPHER: Going off the record.  
15 The time is 9:29 a.m.

16 (Thereupon, a break was taken.)

17 THE VIDEOGRAPHER: We're back on the  
18 record at 9:51 a.m.

19 MR. BURNETT: Monique, can you bring  
20 back the document, the PROACT document that we  
21 were just looking at?

22 BY MR. BURNETT:

23 Q And I want to direct your attention,  
24 Dr. Davies, to the top of Page 3.

25 A All right.

1           Q       So the first full sentence -- first  
2       full paragraph there next to the table -- or next  
3       to the image refers to, quote -- well, it says,  
4       quote: "The opioid epidemic is costing the  
5       State's economy an estimated 8.8 billion a year  
6       and 12 percent of the gross domestic product - a  
7       number that is more than double that of any other  
8       state. This equates to \$4,793 per resident." Do  
9       you see that language?

10           A       I do.

11           Q       Is that consistent with your  
12       understanding that the opioid epidemic has had a  
13       serious economic impact on the State?

14                   MS. RUSSO: Objection to form.

15                   MR. JONES: I'm going to object to  
16       the -- I'm going to object to the form of the  
17       question as well.

18           A       Yeah. I'm -- I'm not a health  
19       economist so -- you know, economies are  
20       multilayered things, so I think it would be better  
21       if you asked that question to somebody who does  
22       that for a living.

23           Q       Sure. Understood.

24                   Let's turn to Page 4, and the second  
25       full paragraph begins with the word, "One," and it

1       says: "One treatment method that has found  
2       success, however, is the utilization of  
3       medication-assisted treatment, or MAT, which  
4       combined with traditional and targeted therapies  
5       has shown positive results." Do you see that  
6       language?

7           A       I do see that language.

8           Q       Okay. And then just skipping ahead one  
9       more quote, at the bottom of that page, third line  
10      from the bottom it says: "In addition, there is a  
11      considerable unmet demand for medication-assisted  
12      treatment - a critical gap in treatment delivery."  
13      Do you see that language?

14          A       Yes.

15          Q       Okay. Is that consistent with what you  
16      were saying before about unmet demand for MAT  
17      locally?

18                   MR. JONES: I'm going to object to the  
19      form of that question.

20          A       Here's the thing about -- about  
21      treatment, right? So there are -- there are  
22      different approaches that work for different  
23      people.

24          Q       Yeah.

25          A       And MAT works for some people,



1       abstinence-based works better for some people.

2                   There's -- there's -- it depends on  
3       what you mean by "success."   Would -- with more  
4       MAT, do we get more people in treatment?   Based on  
5       our experience here, based on what the data has  
6       shown us, yes.   We're getting -- we get more  
7       people into treatment using MAT.   But there's a --  
8       there's an extended cost beyond that, the -- the  
9       therapy.   Once -- once you've run your course and  
10      once you start somebody on buprenorphine, they are  
11      on buprenorphine typically, you know, on average,  
12      somewhere between two to five years.   And then  
13      after that two to five years, there has to be --  
14      you have to continue that treatment.

15                   But when we say MAT treatment, we're  
16      not just talking about putting more -- putting  
17      more of these medications and making them  
18      available.   That's part of it, yes, but you also  
19      need more therapists.

20                   There's a -- there's a huge lack in the  
21      number of behavioral health professionals, and  
22      when you look at the pay lines of -- of Medicaid,  
23      it's hard to attract and keep people here to do  
24      those jobs and to build that -- to build the  
25      infrastructure that really creates a robust

1 behavioral health situation.

2 So medication-assisted is -- is part of  
3 it. It requires a lot of counseling and  
4 behavioral health treatment, but then you have the  
5 whole social system development. I mean you've  
6 got -- you -- you have a community here that is  
7 dependent very largely on its family interactions.  
8 Those family interactions have become unhealthy  
9 because of this, you know, because of the -- the  
10 situation, and so you have to -- you're talking  
11 about rebuilding social structures.

12 It -- it -- yes. Medication-assisted  
13 treatment, does it need to be expanded? Probably  
14 a little bit. But all of the stuff that comes  
15 with it, all of the behavioral health system, all  
16 the social system building, that is a far more  
17 severe deficit when it comes to the -- the needs  
18 of the community in terms of addressing this  
19 widespread opioid use disorder and getting it to a  
20 point where the community is healthy again.

21 Q Okay. So when you say, you know,  
22 there's a severe deficit with regard to the  
23 behavioral health system and the social system,  
24 can you give examples of how that deficit  
25 manifests?

1           A       Well, I mean for every -- for every  
2       physician -- like, well, just take MAT -- MAT for  
3       an example because that's where we started with.  
4       For every 15-minute physician visit one day a  
5       week, you have several hours of therapy that need  
6       to happen, right? And the -- the reimbursement  
7       rates for behavioral health for that hour are much  
8       lower than what you would see for that 15-minute  
9       physician visit, but -- but it's  
10      medication-assisted treatment, right? So  
11      treatment is actually the counseling. The  
12      treatment is the behavioral health issue.

13                When you look at the long-term effects,  
14      you know, the people who are able to get through  
15      treatment and into recovery and then finally to a  
16      point where they can self -- you know, where they  
17      can be active members of the community again and  
18      they can self-manage their disease state, as we've  
19      established earlier, then that requires rebuilding  
20      their social structures, and so they need a social  
21      system that is healthy, and they need people they  
22      can rely on. They need sponsors. They need to be  
23      able to put healthy individuals around them again.  
24      And -- and that gets to the point of where they  
25      are -- as I said before when you look at it

1 neuro-biologically, where they're making decisions  
2 back in their prefrontal cortex. They have a  
3 healthy dopamine system functioning, and that  
4 takes -- that takes time, that takes a lot of  
5 support, not only at the -- at the small social  
6 system level but at a community level so that  
7 those individuals then can be supported throughout  
8 their entire journey into recovery and then into a  
9 point of self-management of care.

10 Q So when you talked about the brain just  
11 there, you're talking about the effects of opioid  
12 use disorder medically on people's brains?

13 A Yes.

14 Q Okay. So those medical effects on  
15 people arising from opioid use disorder lead to  
16 all these other social problems?

17 A Well, they're clearly -- they're  
18 clearly linked. I mean the literature is -- is  
19 fairly comprehensive on that.

20 Q And opioid use disorder, I believe you  
21 said, affects not only those people that are  
22 directly -- that have opioid use disorder but the  
23 whole community, right?

24 A Once -- once it gets to the -- once you  
25 get to a level where every family -- and, again,

1 Exhibit 5.

2 MR. BURNETT: Okay.

3 (EXHIBITS 4 AND 5 WERE MARKED.)

4 MR. BURNETT: Okay. So Exhibit 4 is a  
5 one-page cover page. It just says, "This  
6 document produced natively." The Bates number  
7 on that is Marshall-Health-2227.

8 And then Tab -- Exhibit 5 is the native  
9 version of that document.

10 BY MR. BURNETT:

11 Q So, Dr. Davies, what this means is that  
12 in the production that was made by Marshall  
13 Health, we received the PDF and then attached to  
14 it was the spreadsheet.

15 A Okay.

16 Q Do you have those two pages in front of  
17 you?

18 A I have, yeah, the -- the document  
19 produced natively and then the print-out of the  
20 Excel sheet, yes.

21 Q Right. Okay. All right. So just  
22 focusing on the -- the Excel spreadsheet, do you  
23 recognize this document?

24 A Yes.

25 Q What is it?

1           A       This is a -- these are the -- the  
2       number of -- and each -- well each column is a  
3       little bit different, but exposed, NAS children  
4       numbers from Cabell Huntington Hospital that was  
5       assembled by -- by me and my staff.

6           Q       Okay. So you and your staff prepared  
7       this document?

8           A       Yes.

9           Q       And all of the data in this comes from  
10      Cabell Huntington Hospital?

11          A       Yes.

12          Q       Okay. So there's no data from  
13      St. Mary's hospital here?

14          A       There's no data from St. Mary's  
15      hospital. We don't have access to that. They  
16      see -- they see less prenatally-exposed babies. I  
17      know that.

18                   They are also kids born at  
19      King's Daughters across the river in -- in  
20      Kentucky from -- you know, from the area and --  
21      and even some will all of the way go out -- go out  
22      to Southern -- Southern Ohio Medical Center in  
23      Scioto County, Ohio.

24                   But by -- by and large, Cabell has the  
25      largest number of NAS or prenatally-exposed

1 births.

2 Q Okay. So you referred to King's  
3 Daughters in Kentucky and other medical facilities  
4 in Southern Ohio.

5 A Uh-huh (affirmative).

6 Q So you're saying some -- some people  
7 that live in Cabell County or the City of  
8 Huntington seek medical care in those other states  
9 or those other hospitals?

10 A Yes.

11 Q Okay. So this -- this spreadsheet then  
12 doesn't show the full number of babies born with  
13 NAS of mothers that live in Cabell or Huntington,  
14 correct?

15 A That is correct.

16 Q Okay. And so if we added in the  
17 numbers from St. Mary's, that would increase these  
18 numbers, right?

19 A They would.

20 Q And if we added in the numbers from  
21 women that live in Cabell or Huntington but went  
22 to another hospital outside of Cabell or  
23 Huntington, the NAS numbers would also increase,  
24 right?

25 A Yes.

1           Q       Okay. In the columns -- if you look in  
2       the upper left in parenthesis the titles of the  
3       columns say: "Huntington Area." Do you see that?

4           A       Right.

5           Q       And then in the three columns below  
6       that it says in parenthesis: "All CHH." Do you  
7       see that?

8           A       Yes.

9           Q       What is that distinction there?

10          A       So when it says Huntington area, what  
11       that is -- those individuals during the birth  
12       visit reported a residency within Huntington and  
13       Cabell County.

14                   On all births -- that's all of the  
15       births that have come to -- to Cabell Huntington  
16       Hospital, this is -- it's a regional hospital. So  
17       even though those -- those individuals, those moms  
18       and their babies don't necessarily live in Cabell  
19       County, they may live in Lawrence County, Ohio,  
20       they may live in Logan County, they may live in --  
21       you know, further out in Wayne County, they still  
22       come here for -- to give birth because this is  
23       the -- the largest hospital, the best equipped to  
24       deal with neonatal abstinence syndrome.

25          Q       Largest hospital and best equipped,



1       what, in the Tri-State area?

2               A       In the -- in the Tri-State area, yeah.

3       But it's -- it goes beyond that. I mean we  
4       have -- we have moms drive up from McDowell County  
5       just to give birth here because of -- in order to  
6       get better care for their -- their baby when  
7       they're, like I said, prenatally exposed.

8               And many of those are moms that are  
9       usually in a -- a program when they are pregnant,  
10      so they at a better place when they give birth to  
11      make that decision.

12             Q       Okay. Where is McDowell County?

13             A       McDowell County is about -- well, about  
14      three-hours south if you -- if you drive. It's  
15      the very --

16             Q       Is that in West Virginia?

17             A       -- southern tip of West Virginia.

18             Q       Okay. All right. So the numbers --

19             A       We're talking about 300 miles.

20             Q       Okay. Understood.

21               So the numbers in the upper left  
22      columns, the first row that say "Huntington Area,"  
23      those are a subset of the numbers for all CHH?

24             A       Say that again. You broke up a little  
25      bit.

1 Q Sure. The numbers in the top row of  
2 the spread -- of tables, upper left, that say  
3 "Huntington Area" --

4 A Uh-huh (affirmative).

5 Q -- those Huntington area numbers are a  
6 subset of all the CHH numbers directly below them,  
7 right?

8 A Yes.

9 Q Okay. How did you compile this data?

10 A We have a -- we have a data warehouse  
11 where we can -- we can pull data from the -- this  
12 data comes directly from the -- Cabell's  
13 electronic health record via data warehouse, and  
14 we pull things from the back end, reassemble it in  
15 the data warehouse, validate the data and then  
16 produce these results.

17 Q Okay. So is the data coming from the  
18 hospital?

19 A The data is coming from the hospital.  
20 It's coming -- it's pulled from the hospital's  
21 electronic health record.

22 Q Okay. So in other words, when a woman  
23 comes in and is diagnosed -- well, when a woman  
24 comes in and their baby is diagnosed with NAS,  
25 that's recorded in the hospital system somehow?

1 A Yes.

2 Q And then you get a copy of that, of the  
3 hospital's electronic records?

4 A Yes. That's the short version.

5 Q Right. Well, or -- so the hospital  
6 records go into the data warehouse, and then you  
7 get the data from that warehouse?

8 A Yes.

9 Q Okay. And that's all reliable data  
10 then, correct?

11 A Yeah. This is probably more reliable  
12 data because what we do, we go through a  
13 validation process with -- when it goes into the  
14 data warehouse, we do a validation process. So  
15 that the queries from the EHR will pull it  
16 directly. We'll take a statistical subset. We'll  
17 actually go in and read the record to make sure  
18 it's accurate.

19 Q Okay. And that validation process, is  
20 that something that is done in data gathering like  
21 this in other contexts?

22 A It should. Whether it's actually done  
23 is -- is a -- you know, if I don't do it, then I  
24 can't tell you whether or not it's done. It's  
25 supposed to be.

1 Q Okay. And that validation process,  
2 you've used that prior to this, correct?

3 A Yeah. That's our standard operating  
4 procedure.

5 Q And is that standard within academia or  
6 a standard within Marshall?

7 A It should be.

8 Q Okay. All right. So if we look at the  
9 top row, the Huntington area numbers, you've said  
10 that's for babies with NAS where the mother lives  
11 in Cabell or Huntington?

12 A At the birth visit, yes.

13 Q And the birth visit is after the  
14 baby -- baby is born?

15 A Well, it's -- it's the visit in which  
16 the birth happens, right? So when mom comes in  
17 and -- and she's -- and she's given the CPT code  
18 of live birth, right? That means that at some  
19 time once mom was put in the hospital, she gave  
20 birth, that's the birth visit.

21 Q Okay. The top left table says:  
22 "Exposed Births," and the one next to it says:  
23 "NAS births." Do you see that?

24 A Yes.

25 Q What is the difference between exposed

1       births and NAS births?

2               A       Okay.  So exposed birth means -- so the  
3       definition of NAS in West Virginia is proof of  
4       prenatal exposure and symptomatic of withdrawal.  
5       And different -- different physicians will -- will  
6       diagnose differently, right?  So they're just -- I  
7       mean it's their prerogative as -- as physicians,  
8       so they'll diagnose NAS based on, you know, their  
9       interpretation of that West Virginia law.

10               That law did not take -- and that  
11       definition did not take effect until 2015, I  
12       think.  So -- it may have been 2014.

13               So what we record here is exposed  
14       because we really don't know if the baby does not  
15       exhibit withdrawal symptoms and it was exposed, we  
16       still don't really know whether or not there are  
17       long-term detrimental effects.  So that's --  
18       that's something we're trying to study right now.

19               So if they were exposed, that means  
20       there is proof of prenatal exposure to a  
21       neuroactive substance.  So the -- that neuroactive  
22       substance primarily -- it's primarily opiates,  
23       the -- the baby has been exposed to it.  So we  
24       don't know long-term whether or not they're going  
25       to be cognitive or developmental delays just based

1 on exposure, whether or not they have withdrawal  
2 symptoms.

3 So then on the NAS column is they have  
4 had prenatal exposure, so those babies will be  
5 encompassed in the exposed numbers, and they have  
6 been symptomatic in terms of their withdrawal.

7 MR. BURNETT: Hold on. Let me -- let me  
8 just interrupt.

9 Monique, can you please -- yeah,  
10 thanks. That was another screen that came  
11 up.

12 Q Okay. So -- so exposed births means  
13 there's proof of prenatal exposure, and NAS means  
14 there was proof of prenatal exposure plus  
15 withdrawal symptoms?

16 A In the neonate, yes.

17 Q Right. Okay. And NAS Births is a  
18 subset of exposed births?

19 A Yes.

20 Q And is it possible that all of the  
21 births that are exposed could have NAS?

22 A Well, by definition, no, they have to  
23 be diagnosed, right? If they are not diagnosed,  
24 then they, by definition, don't have NAS. But you  
25 have to remember, NAS is a withdrawal -- it's

1 neonatal abstinence syndrome. So when the -- the  
2 birth happens, they -- the baby then abstains from  
3 the prenatal exposure and has withdrawal symptoms.

4 It is possible that the detrimental  
5 effects that we associate -- the long-term  
6 detrimental effects that we associate with NAS, we  
7 don't know how much exposure creates those  
8 cognitive and behavioral delays that have -- that  
9 are in the literature.

10 So it is very possible that babies that  
11 are exposed but do not show withdrawal symptoms  
12 will still have those long-term detrimental  
13 effects in terms of cognitive and behavioral  
14 delays.

15 Plus, it clearly means that there is  
16 some sort of -- you know, that mom took or was --  
17 you know, exposed the baby to neuroactive  
18 substances while she was pregnant.

19 So in terms of opioid use or -- or  
20 substance use, then that clearly happened in the  
21 exposed neonates whether or not they had  
22 withdrawal symptoms.

23 Q Okay. And this general topic of  
24 exposed births and NAS births, that's -- that's  
25 part of the research that you and Marshall more

1 broadly are conducting right now, correct?

2 A Yes.

3 Q And is that also the subject of ongoing  
4 grant applications?

5 A Yes.

6 Q Okay.

7 A It's a critical question. I mean we  
8 don't -- and we need to know what -- how much of  
9 the exposure causes it, how much is a social  
10 determinant. If we're going to -- if we're going  
11 to repair this thing, we have to have that  
12 research done.

13 Q Right. So in -- in order to understand  
14 how to address this problem of NAS and exposed  
15 births, you need to have data as a foundation of  
16 that work, is that fair to say?

17 A Yes.

18 Q Okay. And you're in the process of  
19 collecting and evaluating that data?

20 A Yes.

21 Q Okay. And what that data shows helps  
22 shape what sort of medical or social remedies  
23 might be best-suited to addressing this problem  
24 with NAS and exposed births, right?

25 A Oh, it's critical, yes.



1 Q Okay. So if we compare the columns  
2 that says: "NAS Births (Huntington Area)" and the  
3 one to right where says: "All Births (Huntington  
4 Area)," then that shows for each year from 2010 to  
5 2020 how many children were born at  
6 Cabell Huntington Hospital where the mother was  
7 from Huntington or Cabell at the time of the birth  
8 visit, how many of them were diagnosed with NAS  
9 versus the total number of births during that  
10 time, correct?

11 A That is correct.

12 Q Okay. So if you look at 2014 under NAS  
13 births it says 108, and then under all births for  
14 2014 it says 1,000. Do you see that?

15 A Yes.

16 Q So just doing the rough math, that  
17 means that in 2014 more than 10 percent of births  
18 in this category were NAS births?

19 A Were diagnosed NAS births.

20 Q Right.

21 A And then -- and then, what, over 20 --  
22 20 percent were proven to be exposed.

23 Q And with that, you're comparing the 223  
24 number in the exposed births column to the 1,000  
25 number in all births column?

1 A Yes.

2 Q Okay. And then for 2015 under exposed  
3 births it says 204, for NAS births it says 109 and  
4 all births it says 959. Do you see that?

5 A Yes.

6 Q So that means that in 2015, again, more  
7 than 10 percent of births were NAS births and more  
8 than 20 percent were exposed births, is that  
9 right?

10 A Yes.

11 Q Okay. And then for 2016, 225 exposed  
12 births, 98 NAS births and 908 total births. Do  
13 you see that?

14 A Yes.

15 Q And, again, percentage-wise that means  
16 that exposed births were more than 20 percent of  
17 total births, and NAS births were more than  
18 10 percent of total births, correct?

19 A That's what that means, yep.

20 Q Those numbers are higher than national  
21 averages, right?

22 A Yes, by a significant amount.

23 Q Do you know how significant?

24 A I think the national -- the estimates  
25 for national average are -- are somewhere

1       between -- somewhere about a little bit lower than  
2       3 percent the last time I checked.

3           Q       Okay. Those -- the 3 percent, is -- is  
4       that current in 2020, or what year would that be  
5       for, do you know?

6           A       I don't think we have a current number.  
7       I don't -- I don't think that -- I don't think  
8       there's 2020 current data available for the  
9       nationwide -- nationwide --

10          Q       So the 3 percent that you referred  
11       to --

12          A       -- not that I know of.

13          Q       -- do you have a -- like a ballpark of  
14       what year that would be for?

15          A       That number is probably from 2014.

16          Q       Okay. So that would mean that in 2014,  
17       the local rate of NAS was three times the national  
18       average, at least?

19          A       For diagnosed NAS, yeah.

20          Q       And NAS, again, goes back to the  
21       mother's opioid use during pregnancy, right?

22          A       Well, you -- you need an exposure,  
23       right, an in utero exposure, and then the baby  
24       would have to be symptomatic.

25          Q       Right. The exposure, are we primarily

1       referring to opioids?

2           A       Primarily.

3           Q       Okay. In small type, in the upper  
4 left, it says: "91 percent of exposed births are  
5 a match with the mother." Do you know what that  
6 means?

7           A       Yeah. EHRs are not designed to match  
8 patients. So in our -- in the Cabell EHR, the  
9 mother's and the baby's records aren't naturally  
10 matched, and so we've had to do it -- build an --  
11 build algorithms and -- and do the matching within  
12 the data warehouse.

13                   And so at the time that this was  
14 produced, that was our success rate in terms of  
15 91 percent of baby's records that were exposed  
16 were matched with their mother's record in the --  
17 in the data warehouse.

18           Q       You referred to EHR, does that mean  
19 electronic health record?

20           A       Yes.

21           Q       Okay. And looking to the right of the  
22 column -- of the tables that we were talking  
23 about, upper right, there's one heading that says:  
24 "Exposed Births with Positive Maternal Opioid UDS  
25 up to 36 weeks before birth." Do you see that?

1 A Uh-huh (affirmative).

2 Q What does UDS refer to?

3 A A urine drug screen.

4 Q What is that?

5 A That is a -- a urine -- a drug  
6 toxicology that is taken at -- from -- from mom  
7 through her urine.

8 Q And is that how opioids are tested for?

9 A That's one way they are tested for.

10 Q Okay. Is that how Cabell Huntington  
11 Hospital tests for opioids, do you know?

12 A Typically, yes.

13 Q Okay. All right. And you can set that  
14 document aside, and if you could open Envelope 14.

15 MR. BURNETT: And, Moniqué, if you could  
16 call this up, and I believe this will be  
17 Exhibit 6.

18 (EXHIBIT 6 WAS MARKED.)

19 BY MR. BURNETT:

20 Q Okay. So this is a copy of an article  
21 called: "History of postpartum depression as a  
22 contributor to the severity of NAS." It appears  
23 to be from a journal called Addictive Behaviors.

24 A Uh-huh (affirmative).

25 Q Volume 89, Pages 78 to 84. Do you --

1 do you have this document in front of you?

2 A I do.

3 Q And my printed copy is missing every  
4 other page, but the electronic copy that we're  
5 also looking at here on the screen share, that has  
6 every page.

7 A Okay.

8 Q Do you recognize this document?

9 A I do.

10 Q Okay. What is it?

11 A This is a -- a publication that my  
12 research team produced.

13 Q Okay. And you see your name listed at  
14 the top as one of the authors?

15 A I am the senior author.

16 Q Okay. And the other names listed here,  
17 they are your co-authors?

18 A The other -- yes.

19 Q Okay. And when you say senior author,  
20 did you write this document?

21 A My student -- I mean my student did  
22 the -- I'm primarily responsible for the data  
23 collection, the writing, all of the -- all of the  
24 document, but my -- my student did the first  
25 draft.

1           Q       Okay. And when you say you're  
2       responsible for the data, so if we turn to  
3       Page 80, there's -- there's a bunch of data and  
4       some tables, Table 1 and Table 2. Do you see  
5       that?

6           A       Yes.

7           Q       Is that data that you or your team  
8       collected?

9           A       That is, yep.

10          Q       Okay. Feel free to look at the  
11       document if you need to refresh yourself, but what  
12       was the -- what was the subject of this article?  
13       What was this article about?

14          A       So one of the things that we -- we try  
15       to look at with neonatal abstinence syndrome,  
16       we're trying to find additional risk factors that  
17       -- that will tell us whether or not a baby is  
18       going to withdrawal severely or not.

19                 So if when we look at mom's --  
20       especially if we look at mom's -- we like to look  
21       at them in the MAP program because they're all  
22       getting about the same amount of opiate -- same  
23       level of opiate exposures, and some babies have  
24       withdrawal symptoms and some don't, and -- even  
25       though they've all clearly been exposed. And so

1 we're trying -- we were looking for  
2 characteristics that would help to tell us whether  
3 or not these -- these neonates would withdrawal.

4 So in -- so what this paper is, is --  
5 what we identified is that if mom had a history of  
6 postpartum depression -- now, obviously, if the  
7 mom is pregnant, we can't use, you know,  
8 postpartum depression as a risk factor because it  
9 doesn't develop until, you know, by definition,  
10 postpartum. So but a history of postpartum  
11 depression, when women have -- have had postpartum  
12 depression initially, typically, they will have it  
13 in subsequent pregnancies.

14 And what this paper does is it  
15 identifies, looks at the different measures of NAS  
16 severity, and what we -- what we're able to show  
17 is that a history of postpartum depression is  
18 indeed a risk factor that the exposed neonate will  
19 withdrawal more severely.

20 Q Okay. So this study of comparing  
21 postpartum depression with NAS or looking at the  
22 interaction of those two issues, that's -- that's  
23 a subset of your broader NAS research?

24 A Yes.

25 Q Okay. If you go back to the first page



1 under the Abstract paragraph -- in the Abstract  
2 paragraph, the third sentence says: "We studied  
3 109 pregnant women in medication-assisted  
4 treatment and their neonates to determine if  
5 psychiatric conditions co-occurring with substance  
6 use disorder contributed to the severity of  
7 neonatal withdrawal." Do you see that?

8 A Yes.

9 Q Okay. And if you turn back to Page 80,  
10 Table 1, it says: "Table 1, Cohort demographics,"  
11 and then "Maternal characteristics," it says:  
12 "N = 109." Does that refer to the 109 women that  
13 were in the study?

14 A Yes.

15 Q Okay. And then below that a few lines  
16 down it says: "Hepatitis C - no."

17 No refers to number, right?

18 A It does.

19 Q And then it says: "68." Do you see  
20 that?

21 A Yes.

22 Q So that means that 68 out of -- out of  
23 109 women in this study had Hepatitis C?

24 A Yes.

25 Q That's a very high number, correct?

1 A It's a --

2 MR. JONES: I object. I object to the  
3 form of that question.

4 MR. BURNETT: I'm sorry. I didn't hear  
5 the objection.

6 MR. JONES: I object to the -- just the  
7 form of the question.

8 MR. BURNETT: Okay.

9 A It is -- I mean it's descriptive of  
10 this population.

11 Q What do you mean?

12 A That -- I mean 68 of those women had --  
13 had Hep C. That's fairly typical levels we see  
14 with -- with MAT population in through looking at  
15 this study and others.

16 Q And these women, because they were  
17 receiving medication-assisted treatment, they all  
18 had some form of substance use disorder, right?

19 A Specifically, because they were in  
20 MAT -- they were in a buprenorphine MAT program,  
21 these women specifically had opioid use disorder.

22 Q Okay. And you're saying that rates of  
23 Hepatitis C, like these rates, are typical among  
24 people in medication-assisted treatment?

25 A When we look at -- when we've looked at

1 populations -- you know, within my group, when  
2 we've specifically looked at our -- our  
3 populations and looked at the Hep C rates, these  
4 are the numbers that we typically see within our  
5 MAT programs.

6 Q Okay. If you look down a little bit  
7 further it says: "Maternal psychiatric diagnoses  
8 number greater than one comorbid psychiatric  
9 diagnoses," and it says: "35." Do you see that?

10 A Yeah. That does not include substance  
11 use disorder if you -- so a substance use disorder  
12 is automatically a -- a behavioral health disorder  
13 so...

14 Q Okay. And then below that there are  
15 numbers for bipolar disorder, depressive disorder,  
16 generalized anxiety disorder, posttraumatic stress  
17 disorder, postpartum depression. Do you see  
18 those?

19 A Yes. Yes.

20 Q Are those all examples of maternal  
21 psychiatric diagnoses?

22 A I would say this is a -- that this is a  
23 fair sampling of the -- of this population.

24 Q So these sorts of psychiatric disorders  
25 are -- are common within this population?

1           A       Based on -- based on our -- our  
2       samplings, yes.

3           Q       Okay. And then you see the bottom of  
4       that table it says: "State of residence:  
5       West Virginia, 75. Kentucky, 16. Ohio, 18." Do  
6       you see those numbers?

7           A       Uh-huh (affirmative). Yes.

8           Q       So that shows that for this demo --  
9       this -- this study of 109 women, the majority were  
10      from West Virginia, right?

11          A       Yes.

12          Q       Do you happen to know how many were  
13      from Cabell County or Huntington?

14          A       I do not know.

15          Q       Okay. If you look --

16          A       They were all treated in Cabell County.

17          Q       Okay. They were treated with MAT in  
18      Cabell County?

19          A       Yes.

20          Q       Okay. And those treatment locations,  
21      those could have been hospitals as well as other  
22      MAT outlets?

23          A       No. This -- specifically this  
24      population was either treated at the MARC program  
25      at Marshall or -- and Valley's MAT program over in

1       their Highlawn facility, both within in  
2       Huntington.

3               Q       Okay. What is the MARC program?

4               A       It's the Maternal Addiction Recovery  
5       and Care program. It's a -- it's a program from  
6       Marshall's OB-GYN department specifically for  
7       pregnant women who have opiate use disorder.

8               Q       Okay. Bottom of Table 1, lower left, a  
9       couple of lines up it refers to numbers for  
10      heroin, prescription opiates and methadone. Do  
11      you see those numbers?

12              A       Yep.

13              Q       So the numbers are 45, 59 and 3  
14      respectively. And so that is the number of babies  
15      that were exposed to those drugs during the  
16      mother's pregnancy?

17              A       Yes. Some obviously were exposed to  
18      more than one.

19              Q       So that shows that out of 109 women, 45  
20      of them had used heroin during pregnancy?

21              A       Yes.

22              Q       And 59 of them had used a prescription  
23      opiate during pregnancy?

24              A       Yes.

25              Q       And 3 had used methadone during

1 pregnancy?

2 A Yes.

3 Q Okay. And those numbers could overlap,  
4 right? A -- a mother could use both heroin and a  
5 prescription opiate?

6 A Yes.

7 Q Okay. Skipping over to Table 2, about  
8 halfway down there's a characteristic called "Day  
9 of life methadone treatment began - days." Do you  
10 see that?

11 A Yes.

12 Q Okay. And under female it says: "2.4  
13 plus or minus 1.5." Under male it says: "1.9 plus  
14 or minus 1.4." Do you see that?

15 A Right. Uh-huh (affirmative).

16 Q Is that the day of the NAS baby's birth  
17 when they are put on methadone treatment on  
18 average?

19 A For this group, yes. So the females  
20 who are on average, you know, halfway through  
21 their -- their third day of life, and the males  
22 within their -- within their second day of life.

23 Q Is -- is methadone the most common  
24 treatment for NAS in babies?

25 A At our hospital.

1       that we looked at in Table 1 a few minutes ago?

2           A       Yes.

3           Q       Okay. You can set that aside. Let's  
4       open Tab 13.

5                   MR. BURNETT: And this will be  
6       Exhibit 7. So, Monique, you can obviously  
7       close this document.

8                   (EXHIBIT 7 WAS MARKED.)

9                   MR. BURNETT: And, again, my paper copy  
10       is missing every other page. The electronic  
11       version that Monique just called up has every  
12       page.

13       BY MR. BURNETT:

14           Q       I'm just going to refer you to the  
15       first page. So Exhibit 7 is an article from the  
16       Journal of Pediatric Health Care, Volume 33,  
17       No. 1. The title is: 'Novel Withdrawal Symptoms  
18       of a Neonate Prenatally Exposed to a Fentanyl  
19       Analog'. Do you see that?

20           A       I do.

21           Q       Is this an article that you  
22       co-authored?

23           A       I am the senior author.

24           Q       Okay. And in the introduction I just  
25       want to point you to some language there. A

1 couple lines down there's a sentence that begins:  
2 "The increase in the incidence of NAS that has  
3 followed the opioid epidemic is especially evident  
4 in the state of West Virginia. The Centers for  
5 Disease Control and Prevention reported that in  
6 2013, West Virginia had the highest rate of babies  
7 born with NAS at 33.4 per 1,000 live births." Do  
8 you see that language?

9 A Uh-huh (affirmative). Yes.

10 Q When it says the highest rate, that's  
11 the highest rate nationally among states?

12 A Yes.

13 Q Is that consistent with your  
14 understanding that West Virginia had the highest  
15 rate of NAS nationwide?

16 A Yes.

17 Q Does West Virginia still have the  
18 highest rate of NAS to your knowledge?

19 A I don't -- I don't think I have seen  
20 data more -- more recent data than -- than what's  
21 displayed here.

22 Q Okay. You can set that aside. Let's  
23 open Tab 15, please.

24 MR. BURNETT: This will be Exhibit 8.

25 (EXHIBIT 8 WAS MARKED.)



1 BY MR. BURNETT:

2 Q Okay. Do you have that in front of  
3 you, paper copy?

4 A I do.

5 Q Okay. So Exhibit 8 is an article in  
6 the Journal of Pediatrics & Child Health Care,  
7 titled: "Polydrug Abuse and Fetal Exposure: A  
8 Review." And you see that you were listed as one  
9 of the authors?

10 A Again, I'm a senior author.

11 Q Senior author, yes.

12 In the introduction, the second  
13 paragraph, it says: "Whether prescribed by a  
14 physician or obtained illegally, opioid addiction  
15 is a cumbersome public health issue, one which  
16 affects pregnant women and their infants by proxy.  
17 Opioids cross the placenta very rapidly, creating  
18 a drug equilibrium between fetus and mother, and  
19 this equilibrium has the potential to affect the  
20 developing fetus in many ways. One of the most  
21 common effects of intrauterine exposure to opioids  
22 is Neonatal Abstinence Syndrome, a withdrawal  
23 syndrome that occurs shortly after birth due to  
24 the abrupt cessation of opioid delivery to the  
25 infant." Do you see that language?

1 A I do.

2 Q Is that consistent with what we have  
3 been discussing in terms of the -- you know, the  
4 definition of NAS?

5 A Yeah. Well, clearly, I -- you know,  
6 I'm the senior author on the paper. I agree with  
7 that statement completely.

8 Q Okay. Just one more, Tab 16. So you  
9 can close this one. Let's open up Tab 16,  
10 Envelope 16.

11 MR. BURNETT: We'll mark this Exhibit 9.

12 (EXHIBIT 9 WAS MARKED.)

13 BY MR. BURNETT:

14 Q This is an article from the Journal of  
15 Perinatology titled: "A management strategy that  
16 reduce NICU admissions and decreases charges from  
17 the front line of the neonatal abstinence syndrome  
18 epidemic." Are you the lead author on this  
19 article?

20 A I am the senior author.

21 Q I'm sorry, yeah, senior officer,  
22 okay -- senior author.

23 A Uh-huh (affirmative).

24 Q I want to direct your attention to the  
25 second page in the section titled: 'Systems of

1 Care' -- or 'System of Care'. And I won't read it  
2 because it's a long paragraph, but you can read  
3 it. It says that your institution opened a  
4 neonatal therapeutic unit, and then it describes  
5 what sort of services are operated by that NTU  
6 characterized by low-light and low-noise and  
7 rockers who were specially trained to hold and  
8 rock the neonates when appropriate. Do you see  
9 that language?

10 A I do.

11 Q And does that language reflect the fact  
12 that -- that babies with NAS require special care  
13 that goes beyond even what other NICU babies  
14 require?

15 A It's different. It's very different  
16 from what NICU babies require. The -- the  
17 low-light -- the -- so -- so one of the things  
18 that happens when individuals withdrawal is they  
19 become hypersensitive to their -- to their  
20 environment. Everything becomes loud and, you  
21 know, lights and -- and noises affect the neonates  
22 pretty strongly. And so the NICU is a place  
23 designed for babies with respiratory issues,  
24 cardiac issues, and so it's loud and there's a lot  
25 of noisy machines, ventilators, things like that.

1 And so that's really -- the typical area where you  
2 would take care of a neonate that was having  
3 issues is the NICU, was -- was thought by our  
4 clinicians to be unsuitable for NAS treatment, and  
5 so the NTU was established.

6 Q All right. So -- right. So babies  
7 with NAS require different specialized care?

8 A Uh-huh (affirmative).

9 Q Okay.

10 A And this -- the architects of the NTU  
11 were Sean Loudin, Joe Werthammer and -- and  
12 Sara Murray, all who were co-authors on this  
13 paper.

14 Q Okay. Understood. We can set that  
15 document aside.

16 Now, if you could -- if you could turn  
17 to Tab 7 or Envelope 7.

18 A Uh-huh (affirmative). Okay.

19 Q Well, let's wait until it's called up  
20 electronically so everyone can see it.

21 A Oh, I can't hear you.

22 Q Can you hear me? Can you hear me,  
23 Dr. Davies?

24 THE VIDEOGRAPHER: He's still connected  
25 to audio.

1 MR. BURNETT: Joel, can you hear me?

2 MR. JONES: Can you hear us?

3 Can you hear us?

4 MR. BURNETT: I can hear you, yes. I  
5 can hear both of you.

6 MR. JONES: Okay. I see your mouth  
7 moving, but I don't hear anything.

8 MR. BURNETT: Okay. Can you still not  
9 hear me? How about now?

10 THE VIDEOGRAPHER: We can still hear  
11 you.

12 MR. BURNETT: I can hear you.

13 THE WITNESS: Oh, there you are. Oh,  
14 okay.

15 MR. BURNETT: Joel, can you hear me?

16 MR. JONES: Yes. Thank you.

17 THE WITNESS: We got it fixed.

18 MR. BURNETT: Ms. Russo, I assume you  
19 can hear me as well?

20 MS. RUSSO: I can.

21 MR. BURNETT: Okay. All right. So this  
22 is -- I believe this is Exhibit 10.

23 (EXHIBIT 10 WAS MARKED.)

24 THE WITNESS: Okay.

25

1 BY MR. BURNETT:

2 Q Do you recognize this document?

3 MS. KEARSE: Will you repeat your  
4 question?

5 MR. BURNETT: Yeah.

6 BY MR. BURNETT:

7 Q Dr. Davies, do you recognize this  
8 document?

9 A Yes. This is a data visualization put  
10 together by my team.

11 Q Okay. So the heading on this, it says:  
12 'Opioid Use Disorder Over Time'. To the right it  
13 says: "Presented by Marshall Health." Bottom  
14 right corner it says: "Marshall-Health-2240" is  
15 the Bates number.

16 A Yes. It's -- it's presented by  
17 Marshall Health, but this is data primarily -- you  
18 can see from -- from both Cabell, the -- the image  
19 on the -- the graph on the right is strictly  
20 Cabell. "Overdose Deaths Over Time" that is  
21 from -- that's Cabell County data I believe.

22 And then the "New Diagnoses Per  
23 Quarter" is both Cabell and Marshall data, so  
24 that's sort of a subset of the population, the  
25 number of new diagnoses of opioid use disorder, so

1       that's -- that's the incidents.

2               Q       Okay. Just stepping back a minute, you  
3       said this is a data visualization put together by  
4       your team. Can you expand on that?

5               A       Well, this uses a -- a program called  
6       Tableau. And basically, we take -- we take the  
7       data from the warehouse, and then we create a  
8       graph so that you can -- you can visualize the  
9       data so it's not just a bunch of tables but  
10      actually a -- a graphic representation of -- of  
11      the data that's described.

12              Q       So this -- this -- these graphs are  
13      generated from data that is in the possession of  
14      you or your team?

15              A       Yes. Or we have access to the data.

16              Q       I'm sorry, say that again?

17              A       Or -- or it's data we have access to,  
18      so we have a -- we have an agreement with Cabell  
19      that allows us to access their data, but it's  
20      still -- still very clearly theirs.

21              Q       And when you say Cabell, do you mean  
22      Cabell Huntington Hospital?

23              A       Meaning Cabell Huntington Hospital,  
24      yes.

25              Q       Okay. And when you refer to your team,

1 is that the Division of Addiction Sciences or --  
2 or some other team?

3 A That's specifically my -- my research  
4 team, that's -- that's my students and -- and my  
5 people that work specifically on a -- on my -- on  
6 my research projects.

7 Q Okay. So as part of your research  
8 projects, you and your team gather and evaluate  
9 data, is that fair to say?

10 A That is fair to say.

11 Q And I believe you said earlier, the  
12 subjects of -- of that data include opioid --  
13 opioid use disorder and NAS?

14 A Yes.

15 Q Okay. The way this data is presented  
16 here, does that come from a website?

17 A Did it come from a website? No.

18 Q It comes from your own internal data?

19 A Yes.

20 Q Yeah.

21 A It comes from a -- from our data  
22 warehouse.

23 Q Okay. And, again, you said in the  
24 upper left the -- or the graph for OD deaths over  
25 time, you said that came from Cabell Huntington



1 Hospital?

2 A The graph for -- no. The graph from  
3 overdose deaths over time, that is from the State  
4 Medical Examiner's Office.

5 Q Okay.

6 A But it's -- it's individuals in Cabell  
7 County, so it's the same as the State data.

8 Q Okay. All right. So it's -- it's  
9 Cabell County, not Cabell Huntington Hospital?

10 A That graph, yes. Correct.

11 Q Okay. And tell me again what the  
12 sources are for the graph in the lower left that  
13 says: "New Diagnoses Per Quarter Per Year."

14 A New Diagnoses Per Quarter Per Year are  
15 dia -- are new incidents of opioid use disorder  
16 diagnosed at either Cabell Huntington Hospital or  
17 at Marshall Health clinics.

18 Q Okay. Marshall Health clinics means  
19 health clinics affiliated with Marshall --

20 A Yes.

21 Q -- that are part of Marshall Health?

22 A That are part of Marshall Health.

23 Q Okay. And then tell me again where the  
24 data in the -- the bar chart on the right comes  
25 from.

1           A       That -- that data is emergency  
2       department visits that had opiates associated with  
3       them from Cabell Huntington Hospital.

4           Q       Okay. So -- so not from St. Mary's or  
5       any other hospital other than Cabell Huntington  
6       Hospital?

7           A       No, no.

8           Q       Okay. Now, if we look in the upper  
9       left at opioid overdose -- or, sorry, OD deaths  
10      over time, does that refer to only overdose deaths  
11      related to opioids?

12          A       Yes.

13          Q       Okay. And that shows that from 2010 to  
14      2017 the number of opioid overdose deaths in  
15      Cabell County went from 498 to 873, right?

16          A       Yes.

17          Q       And there's a decrease for 2018. Is  
18      that because data is still being collected for  
19      2018?

20          A       No, it's not because of that. But  
21      there are -- it's hard to say why exactly, the  
22      decrease, but there have been very significant  
23      harm-reduction programs and (inaudible)  
24      distribution that happened in 2017 that very much  
25      could be affecting the over -- lowering the

1 overdose numbers in 2018.

2 There has been a fairly significant  
3 community response to try and lower the overdose  
4 death rate --

5 Q Uh-huh (affirmative).

6 A -- to try and keep people alive and get  
7 the treatment. So we don't know for sure that  
8 that is -- that it's causative, but it is  
9 corollary.

10 Q Okay. The chart below that, New  
11 Diagnoses Per Quarter Per Year, that shows a steep  
12 increase over time from 35 unique patients  
13 diagnosed to 414 in 2019, is that right?

14 A Yes.

15 Q And that's patients -- unique patients  
16 with new diagnoses of opioid use disorder at  
17 Cabell Huntington Hospital or Marshall Health  
18 clinics, right?

19 A Yes.

20 Q So it shows that between 2010 and 2019  
21 the number of people with new diagnoses of opioid  
22 use disorder went up by a factor of more than ten?

23 A Uh-huh (affirmative).

24 Q Okay. And on the right the bar chart  
25 titled: 'CHH ED Visits By Drug', that shows a

1 steep increase in emergency department visits  
2 related to opioids between 2010 and later years,  
3 is that right?

4 A Yes.

5 Q Okay. You can set that aside.

6 MR. BURNETT: Can we open Tab 9, please,  
7 Envelope 9, and this will be Exhibit 11.

8 (EXHIBIT 11 WAS MARKED.)

9 BY MR. BURNETT:

10 Q Do you have that in front of you?

11 A I do.

12 Q Okay. So this is a document  
13 Bates-stamped Marshall-Health-2242 titled: "'OUD  
14 Population At a Glance', Presented by Marshall  
15 Health." Do you see that?

16 A I see it.

17 Q Okay. Does this come from the same  
18 data source as the prior exhibit?

19 A It does.

20 Q So this comes from data maintained by  
21 your team at Marshall?

22 A It comes from data that we have access  
23 to.

24 Q What -- what is the original source of  
25 this data, if you know?

1           A       This data, again, is Cabell Huntington  
2       Hospital and Marshall Health clinics.

3           Q       Okay. Does it include places that  
4       provide MAT, such as Valley Health and Prestera?

5           A       This does not.

6           Q       Okay. So the -- the OUD population  
7       counts here would be higher if you included those  
8       additional sources, is that right?

9           A       Yeah. This is clearly a subset of  
10      the -- of the whole OUD population in -- in Cabell  
11      County in Huntington.

12          Q       Okay. Can you tell what year these  
13      numbers are from?

14          A       I believe these are 2019 numbers -- no,  
15      these are -- these are current, so these would be  
16      current patients. These are current patients so  
17      -- and so by definition, a current patient is --  
18      is anybody who has had a visit within the last  
19      three years.

20          Q       Okay. And --

21          A       At the time that we -- at the time that  
22      we took this.

23          Q       Okay. Do you know what time this was  
24      taken as of?

25          A       I don't remember. I think it was -- it

1       was either -- it was sometime early 2020, I  
2       believe. I think it was -- it was early in the  
3       year this year.

4               Q       Okay.

5               A       I think first quarter 2020 is when it  
6       -- sometime in there.

7               Q       Okay.

8               A       It was before COVID, that's all I  
9       remember.

10              Q       Understood. Upper left it says:  
11       "Count of Individual SUD Diagnoses for OUD."

12              A       Uh-huh (affirmative).

13              Q       And then it says: "Total OUD  
14       Population, 7,627." Do you see that?

15              A       Yes.

16              Q       So what does that number represent?

17              A       That number represents the number of  
18       individual patients within the system who have  
19       been diagnosed with opioid use disorder.

20              Q       Okay. From Cabell Huntington Hospital  
21       and all Marshall clinics, right?

22              A       Yes.

23              Q       Do you have a sense of how much that  
24       number would grow if you included other sources of  
25       data such as Prestera and Valley Health?

1           A       It's hard to say because the  
2       hospital -- it -- it -- you know, a lot of those  
3       patients will also be patients in the hospital.  
4       Whether or not their opiate use disorder is on  
5       record at the hospital, it's -- it's hard to say.  
6       It depends on what they come in for.

7                   Clearly, this is a -- this is a subset  
8       of the population. I don't think I could -- I  
9       could tell you accurately the size of the subset.

10           Q       And the geographic area that this is  
11       drawn from, is this just Cabell County?

12           A       This is -- this is Cabell County and  
13       Huntington and the City of Huntington. So some of  
14       those -- I think one small section of the area  
15       includes -- it was actually Wayne County, but it's  
16       encompassed within the City of Huntington.

17           Q       Right. Okay. So out of the total  
18       population of the City of Huntington and Cabell  
19       County as of earlier this year, almost 8,000  
20       people had OUD diagnoses?

21           A       Yes.

22           Q       And actually that number is  
23       undercounted because of the other sources that we  
24       talked about?

25           A       Yes.

1 Q Okay. And then so next to Total OUD  
2 Population it lists opioids, and that number is  
3 the same, 7,627. That's because every one with  
4 OUD has taken opioids, is that fair?

5 A Yes.

6 Q And then to the right it lists:  
7 Alcohol, cannabinoids, sedatives and other  
8 categories of drugs, right?

9 A Right. So -- so obvious -- so when it  
10 says opioids -- opioids, that's individuals with  
11 opioid use disorder. If it says alcohol, those  
12 are individuals with alcohol use disorder in  
13 addition to the opioid use disorder. Where it  
14 says cannabinoids, that is cannabinoid use  
15 disorder in -- in addition to the opioid use  
16 disorder --

17 Q Uh-huh (affirmative).

18 A -- and so on.

19 Q Okay. So there's overlap, you know,  
20 with opioids and other substances sometimes?

21 A Most of the time.

22 Q Most of the time. Okay. Then below  
23 that there is two tables, one -- well, it says:  
24 "OUD Co-Conditions," and then there's a table  
25 called "Psychiatric" and a table called



1       opioid use diagnoses of individuals with opioid  
2       use disorder.

3               Q       And that's because the people who are  
4       using -- who are misusing opiates come from all  
5       age ranges?

6               A       They do.

7               Q       Okay. All right. You can set that  
8       aside.

9                       MR. BURNETT: Let's open Tab 6, Envelope  
10       6, which is will be Exhibit 12.

11                      (EXHIBIT 12 WAS MARKED.)

12       BY MR. BURNETT:

13               Q       Do you have that in front of you?

14               A       I do.

15               Q       Okay. So this is a one-page document  
16       Bates-stamped Marshall-Health-2239. The title is:  
17       'west Virginia Overdose Deaths'. Do you recognize  
18       this document?

19               A       Yes.

20               Q       What is it?

21               A       This is a data visualization, just like  
22       the others, that we developed from data that we  
23       received from the medical examiner's office on  
24       overdose deaths.

25               Q       Okay. Does it come from the same

1 database as the exhibits that we were just looking  
2 at?

3 A It was put in the same database, yes --

4 Q Okay.

5 A -- but the source -- where those  
6 sources were, the electronic health records, this  
7 source is the medical examiner's office.

8 Q And that's the State Medical Examiner?

9 A Yes.

10 Q Okay. I -- I've sometimes heard  
11 reference to vital statistics. Is -- is this data  
12 from vital statistics?

13 A Well, the -- all of the State -- the  
14 State agencies will distribute their data through  
15 the vital statistics office, so the vital  
16 statistics is the State Department that assembles  
17 data from various State agencies. So the  
18 originating office is the Office of the Medical  
19 Examiner's Office, but their data is then sent to  
20 Vital Statistics who then distributes it out to us  
21 and others.

22 Q Okay. And this data is reliable  
23 because it's coming directly from the medical  
24 examiner's office?

25 A Yes.

1           Q       Okay. Unfortunately, the charts on the  
2       right, we can't tell what colors correspond to  
3       which. Do you happen to know which lines  
4       correspond to Cabell by any chance?

5           A       If I remember correctly, the top line  
6       is Cabell on all of these graphs.

7           Q       So the highest numbers here are from  
8       Cabell?

9           A       I -- I believe so if I'm remembering  
10      correctly. Let's see -- Putnam, Wayne -- oh,  
11      yeah, those are all Cabell. All the highest ones  
12      are Cabell.

13                   The only -- the only county that would  
14      rival Cabell would be Kanawha, and they're not  
15      presented on this visualization. So, yeah, the  
16      top line is Cabell on all of these.

17          Q       Okay. So does that mean that, you  
18      know, at least among these five counties listed  
19      here, Cabell had the highest number of overdose  
20      deaths for each of these five drugs?

21          A       That had those drugs within the  
22      toxicology, right. So those drugs were discovered  
23      in the toxicology within overdose deaths.

24          Q       Yeah. Okay. So for fentanyl it shows  
25      that between 2014 and 2017 that the numbers went

1 from almost 0 to roughly 150 overdose deaths where  
2 fentanyl was found in the toxicology, right?

3 A Yes.

4 Q Okay. And for heroin, at the bottom,  
5 it shows that for Cabell the numbers went from  
6 almost 0 in 2010 to over 50 in 2017, right?

7 A Yes.

8 Q Okay. And then you look -- if you look  
9 upper left, there's a chart titled: 'Age of Death  
10 (2010 to 2016)'.  
11

12 A Uh-huh (affirmative).

13 Q Do you see that?

14 A I do.

15 Q And that shows a range of deaths that  
16 go from 0 to 89, right?

17 A Yes.

18 Q And the majority are between 20 and 60  
19 or so, right?

20 A Yeah. Between 20 and 60. That's a  
21 fairly wide range.

22 Q Right. So that's showing there's a  
23 wide range of the ages at which people have died  
24 of overdose in West Virginia?

25 A That's what the data says.

Q And is this -- are those deaths

1 specific to opioids?

2 A I -- I would have to look at the data,  
3 but opioids is always going to be a major cause.  
4 The other drugs that we're -- where you see --  
5 when you go through this data individually, the  
6 synthetic marijuana can cause an overdose death.

7 But by and large if there's not an  
8 opiate associated where you might get an overdose,  
9 you're not likely to get death. So the vast --  
10 and I'm going on -- I'm going on memory here, but  
11 there are very few of these overdose deaths that  
12 are in this dataset that I can remember that do  
13 not have an opiate associated with it.

14 Q And those opiate overdose deaths, those  
15 include both prescription and illicit opioids,  
16 right?

17 A Yes.

18 Q And sometimes people have both  
19 prescription and illicit opioids in their system  
20 in the toxicology report, right?

21 A That is an accurate statement.

22 Q And when I refer to illicit, what is  
23 your understanding of that term?

24 A Well, I -- I'm assuming you use it --  
25 you're using it like most where illicit -- illicit

1 substances are -- are non-prescribed opiates, but  
2 primarily I think you probably mean injection  
3 drugs.

4 Q And what are those drugs?

5 A So -- well, just a lot of drugs are  
6 injected, right? So typically you think heroin.  
7 Heroin disappeared from -- from this area for a  
8 while. People thought they were buying heroin and  
9 they were really getting fentanyl, so it's  
10 fentanyl, heroin. But a lot of the prescription  
11 drugs, even buprenorphine, methadone, Oxycontin,  
12 will be crushed and injected as well.

13 So illicit would -- you know, to me  
14 means it was obtained without a prescription by  
15 anybody. And then of course opiate misuse would  
16 be any misuse of -- of a drug, including ones that  
17 were originally prescribed for somebody.

18 Q Okay. And the -- the charts that we  
19 looked at on the right side of this document show  
20 a sharp increase in fentanyl and heroin overdose  
21 deaths in recent years, is that a fair summary?

22 A That is a fair summary. You know,  
23 the -- you know, in talking to people by and large  
24 before 2010, what I hear directly from patients  
25 who have been around a long time, who have

1       suffered through opioid use disorder, primarily  
2       people who are now sponsors or they are -- they  
3       are in the recovery area, they said before 2010 it  
4       was mostly as they say pills. They weren't  
5       specific. And then after that, we have seen a  
6       huge switch to the injection drug use.

7               Q       And when you say pills, are you  
8       referring to prescription opioids?

9               A       I'm -- I'm merely saying what I was  
10       told. When they say pills, they mean opiates in a  
11       pill form.

12              Q       Right. So they -- they may or may not  
13       be pursuant to a prescription?

14              A       I have no -- I have no way to verify  
15       that.

16              Q       Sure. Okay.

17                      MR. BURNETT: All right. You can set  
18       that document aside.

19                      THE VIDEOGRAPHER: Counsel, I'm sorry to  
20       interrupt. If you're moving onto another  
21       document, can we take a short break so I can  
22       change my media tape?

23                      MR. BURNETT: Sure. And I was -- I was  
24       about to say, I -- I believe I have just one  
25       more document, so I'm almost done.

1                   There are, throughout the time,  
2       various, you know, physicians and -- and, you  
3       know, social workers who participate in -- in  
4       child health, (inaudible) three, those kind of  
5       groups all -- all have participated in Healthy  
6       Connections.

7               Q       So Healthy Connections was an  
8       organization that was geared towards providing and  
9       addressing children's health issues?

10            A       Right, specifically around NAS.  
11       Because, you know, we have them in the hospital,  
12       and then we -- and then you sort of lose track of  
13       them. And so it was -- it was a way to start  
14       creating -- bringing organizations together so  
15       that we could have a more continuous flow in terms  
16       of -- of helping these children and their  
17       families.

18            Q       You had mentioned that your ability to  
19       participate in something like Healthy Connections  
20       is limited because of your availability, you're so  
21       busy. What's taking up the majority of your time  
22       in your current role at Marshall Health?

23            A       Research. You know, trying to --  
24       trying to put all of these disparate -- you know,  
25       had this -- had this lawsuit happened in -- you



1 know, in the -- in two years or three years, I  
2 probably could have given everybody a lot -- a lot  
3 more intricate data, but we're in the process of  
4 building a -- a data system where we're actually  
5 connecting all of these pieces together so we can  
6 give real answers, but it takes time and it's  
7 expensive.

8 And we have -- we have -- you know,  
9 less -- we don't have the resources we necessarily  
10 need to build a system like this, so but it --  
11 we're doing it anyway.

12 You know plus we have -- I have a  
13 number of basic research projects where we're  
14 looking at data. We're doing prospective  
15 research. We're recruiting patients, which has  
16 been largely on hold.

17 Plus, I'm in -- we're in the process of  
18 doing an evaluation of -- of the Cabell County  
19 response for the CDC that -- to find out what's  
20 really working and what's -- what could be  
21 replicated for other communities.

22 Q Okay. A little bit of follow-up on --  
23 on that since that's a lot of information. You  
24 said you're working with the CDC, or you're  
25 providing a response to the CDC what's working in

1 Cabell County. Is that --

2 A Uh-huh (affirmative).

3 Q -- as it respects the care and  
4 treatment of NAS children?

5 A Well, that's -- that's for -- for  
6 addiction across the board, including NAS.

7 Q So what other data or response are you  
8 providing to the CDC?

9 A Well, we're in -- we're still in the  
10 progress of collecting that data.

11 Q What data are you collecting?

12 A Well, we're collecting qualitative  
13 data, doing -- doing interviews, doing surveys.  
14 Plus we're putting together this data system so we  
15 can pull quantitative data to look at, if we've  
16 been effective at getting more people into  
17 treatment and reducing overdoses, but we won't  
18 have that data collected for another six months.

19 Q And you said that you're working on  
20 this process data system. What -- what are the  
21 data points you're looking to fill in for this  
22 large process data system?

23 A Well, we want to be able to -- to look  
24 at the community as a whole, right? So we have  
25 disparate systems like most -- like most

1 communities do.

2 And so each system has a number of  
3 patients, but we want to identify the right number  
4 of patients, who needs help, are they getting to  
5 the right -- are they getting to the right kind of  
6 -- you know, I talked about earlier today  
7 different people have different success levels  
8 with different treatment modalities. And so we  
9 want to identify the risk factors that tell us  
10 which treatment modalities are -- are likely to be  
11 most effective so that instead of somebody going  
12 into treatments four or five, six, eight times,  
13 it's -- it's maybe two or three.

14 We want to make sure we're optimizing  
15 our -- our system. So if we're going to increase  
16 the number of available beds, we want to make sure  
17 we're using those -- all the beds effectively. It  
18 looks like we are, but it's -- because everything  
19 is full all the time. But to really be able to  
20 tell what our -- what our capacity is -- is  
21 necessary, you have got to -- you have to do this  
22 kind of work. It just -- it takes a long time,  
23 and it's very expensive to do.

24 Q And is one of the data points you're  
25 collecting the specific opioids that community

1 members are using?

2 A Not yet. I mean it's -- it's just a  
3 matter of -- we haven't gotten that far. Will it  
4 be at some point? Yes, but we haven't gotten that  
5 far yet.

6 Q Do you have a process in place by which  
7 to collect the specific opioids that members of  
8 the community are using, or you have not developed  
9 the process yet to collect that data?

10 A So we're -- we're building that process  
11 now.

12 Q So what's the state of the process?

13 A It's more than just a process. It's --  
14 what's that?

15 Q What's the state of the process, or  
16 what's the current plan in order to capture that  
17 data?

18 A Well, the -- the idea is -- is to feed  
19 the disparate systems into a -- into a single data  
20 warehouse in a way that protects individual  
21 patient information. So we're building the  
22 system, and we're building it -- you know, we have  
23 to build it piece by piece, but we all -- you  
24 know, I've only got one -- I've only got one data  
25 architect so it just -- eventually, we'll get to

1 all of those pieces, but it will take a while.

2 Q Is the -- the thought or the current  
3 plan to take this information if it's contained in  
4 medical records or get it from other sources?

5 A Both.

6 Q And what other sources would be  
7 available to you to determine the specific types  
8 of opioids that members of the community are  
9 using?

10 A Well, there's a lot of records.  
11 There's a lot of self-report records in various  
12 agencies where they do, you know, social  
13 determinant surveys and interviews on -- on  
14 intakes. There's -- there's criminal justice data  
15 points. There are data points in -- in various  
16 agencies in -- in workforce areas that do drug  
17 tests. There are, of course, the, you know,  
18 Prescription Drug Monitoring Program.

19 But we have to link it to individual  
20 patients. We have to do it in a way that protects  
21 the patient's identity to make sure we're -- we're  
22 compliant with HIPAA and HITECH and, you know,  
23 42 CFR Part 2, plus -- plus the West Virginia  
24 laws.

25 So it's -- it's a tricky process.

1       We've figured out a way to do it. It's just a  
2       matter of going through the -- doing the work now.

3           Q       And have you created documents that  
4       address the way to collect this data?

5           A       Well, each -- each data point is going  
6       to be the -- the document -- I mean, yes, but each  
7       data point is going to be different. It's going  
8       to have different documentation depending on what  
9       we are doing.

10          Q       And is there someone -- you had  
11       mentioned that it's very difficult to take the  
12       order monitoring programs and the individual  
13       medical records and correlate specific  
14       prescriptions to patients. Is there anyone on  
15       your team who's qualified to do that currently?

16          A       It's not a matter -- it's not a matter  
17       of are -- are we qualified to do it. It's a  
18       matter of having the -- having enough personnel to  
19       be able to do all that work.

20          Q       Do you currently have enough personnel  
21       to do all of that work?

22          A       Oh, not even close.

23          Q       How many -- how many people do you  
24       think you need?

25          A       Ideally, I would -- I would -- I would

1       probably -- to do all the work we would probably  
2       want a team of 10 or 12.

3               Q       And how large is your team right now?

4               A       Me and one other person.

5               Q       You also said you've had to halt basic  
6       research projects. Have you suspended those  
7       because of COVID-19 and the epidemic?

8               A       Yeah. Yeah. We can't -- we can't  
9       recruit patients right now because -- because of  
10      the COVID pandemic. It's hard enough getting a --  
11      you know, letting the clinicians do their part and  
12      having the telemedicine and keeping -- keeping  
13      these -- this particular population engaged.

14              Q       And what types of patient populations  
15      were you looking to engage with for these research  
16      projects?

17              A       Well, we have two ongoing research  
18      projects where we were recruiting patients that we  
19      were in the process of recruiting when we halted.  
20      One -- one has -- recruits men in an  
21      abstinence-based program, the other one is  
22      pregnant women and their -- and their child.

23              Q       And, I'm sorry, I missed the first  
24      org -- the first group of patients that you're  
25      recruiting or enrolling.

1           A       They're -- they're men in an  
2       abstinence-based program.

3           Q       I know you were asked if you've ever  
4       been deposed before. Have you ever testified in a  
5       trial?

6           A       Nope.

7           Q       Have you ever been a party to a  
8       lawsuit?

9           A       Not that I'm aware of.

10          Q       Have you had a conversation with anyone  
11       who is not your lawyer representing you here today  
12       on behalf of Marshall Health whether you would  
13       testify in the trial, to the extent this lawsuit  
14       culminated in a trial?

15          A       No.

16          Q       I believe your attorney has received  
17       some documents from my office on behalf of  
18       AmerisourceBergen Drug Corporation, and there  
19       should be a document identified as Tab 28, which  
20       is the Third Amended Complaint in this matter.

21                 MR. JONES: Let's pause for a minute. I  
22       need to grab that -- grab that box for him.

23                 THE WITNESS: Okay. He's going  
24       to -- we've got to pause for a minute while  
25       Joel grabs that box.



1       you just described in your answer in terms of any  
2       correlation or cause and effect or relationship  
3       between mental health disorders and opioid use?

4           A       I don't think that data exists. That's  
5       going to have to be prospective studies to -- to  
6       determine that.

7           Q       And is that one of the --

8           A       Everything else is --

9           Q       One of the list of data points --

10          A       I'm sorry. Go ahead.

11          Q       Is that one of the lists of data  
12       points that you would like to review that you've  
13       put into this -- the future programs for your  
14       department?

15          A       Yeah, absolutely. But I -- I think,  
16       like I said, that's going to have to be  
17       prospective research where we actually design a  
18       protocol and -- and move -- move completely  
19       forward with it.

20          Q       Have you started to design the  
21       protocol?

22          A       That one, no, not yet. It's on my --  
23       it's on my list. I have a very long list.

24                   There's a lot that needs to be done  
25       here in terms of research. There's just --

1       there's just so much that needs to be done, and --  
2       and we can't rely on other communities to do it  
3       because there are some cultural things that are --  
4       are unique here so...

5               Q       What cultural issues are unique to --

6               A       Well, there are cultural issues that  
7       are unique in everywhere, right? So any time you  
8       have a best practice, you can't just take that  
9       best practice and use it somewhere else. You have  
10      to take it and use it and develop it and then  
11      track those measures to make sure it functions.

12                   We have a community here -- in  
13      Appalachia everything is -- is separated, right?  
14      Cabell County and Huntington is -- is fairly flat,  
15      but you're still -- you're still dealing with an  
16      Appalachian culture.

17                   And -- and so there's -- there was a  
18      lot of things that was protective about that  
19      culture in terms of the family dynamic and strong  
20      family ties. But once addiction has now seeped  
21      into so many families, a lot of that has broken  
22      down, so our natural resistant systems have -- are  
23      not functioning right now, so there has to be a  
24      rebuild of all of that.

25                   And so as we develop treatments, and as

1 we develop -- adopt new best practices, we have to  
2 track how those changes in -- in the -- in the  
3 social structure is going to be maintained.

4 Because that social structure that the -- the  
5 individual social systems in that social structure  
6 within the community is a huge part of recovery.

7 Q We had talked earlier about the various  
8 risks that you were aware with the use opioids,  
9 whether it's abuse of opioids, physical dependence  
10 or addiction. When did you first become aware of  
11 the risks associated with the use of opioids?

12 A With the risk associated with -- with  
13 opioids? I mean that's -- I mean, you know,  
14 obviously I have had neurobiology courses as I was  
15 getting my, you know -- as I was going through  
16 school. And -- and addiction, particularly  
17 addiction to opiates, is always part of that  
18 because it's a -- it's a, you know, a pretty  
19 dynamic system.

20 But in terms of what we were doing  
21 here, I mean I've known -- I've known about  
22 addiction my whole life. But it's a matter of  
23 really getting in and -- and -- and studying it in  
24 a very comprehensive way starting with -- you  
25 know, in 2013 when I started looking at the NAS

#

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF WEST VIRGINIA**

THE CITY OF HUNTINGTON,  
Plaintiff,

v.

Civil Action No. 3:17-01362

AMERISOURCEBERGEN DRUG  
CORPORATION, *et al.*  
Defendants.

---

CABELL COUNTY COMMISSION,  
Plaintiff,

v.

Civil Action No. 3:17-01665

AMERISOURCEBERGEN DRUG  
CORPORATION, *et al.*  
Defendants.

**DECLARATION OF TODD DAVIES, Ph.D.**

1. I am an Associate Professor and the Associate Director of Research and Development in the Division of Addiction Sciences and the Department of Family and Community Health at Marshall University's Joan C. Edwards School of Medicine.

2. I was deposed in this litigation on July 28, 2020. This declaration supplements and clarifies my testimony.

3. Exhibit 11 of my deposition is a one-page document entitled "OUD Population at a Glance," Bates-stamped MarshallHealth-00002242. It is a screenshot printout from a Marshall Health database of electronic health records that I have access to, as described on pages 109-11 and 115 of my deposition transcript. I created the screenshot.

4. Marshall Health's electronic health records identify patients' place of residence, among other data.

5. Exhibit 11 shows data only for residents of Cabell County and the City of Huntington, including the two Huntington zip codes in Wayne County. I filtered the Marshall Health database at Plaintiffs' request, in response to Plaintiffs' subpoena, to show data only for residents of that specific geographic area.

6. The map in Exhibit 11, "Patient Density by Location OUD," shows the same geographic area (Cabell County and the City of Huntington) corresponding to the data in the exhibit. The native version of Exhibit 11, attached as Exhibit A to this Declaration, shows the geographic area more clearly.

7. I described Exhibit 11 accurately in my deposition when I testified that it is drawn from the population of Cabell County and the City of Huntington, including the part of Huntington in Wayne County. See pages 117-18 of my transcript.

8. The figure in the upper left of Exhibit 11, "Total OUD Population," listing 7,627, represents the total number of current, unique patients diagnosed by Cabell Huntington Hospital or Marshall Health clinics with opioid use disorder, among the residents of Cabell County and the City of Huntington (including the two Huntington zip codes in Wayne County). See pages 114-18 of my deposition transcript. As stated in my deposition, it shows that "out of the total population of the City of Huntington and Cabell County as of earlier this year, almost 8,000 people had OUD diagnoses." *Id.* p. 118. The data comes from the Marshall Health database.

9. Exhibit 13 to my deposition is a 25-page document entitled "Marshall MAT-LINK Project Application," Bates-stamped MarshallHealth-00000693-717. It is a grant application that I drafted, as described on pages 129-30 of my transcript.

10. The second page of Exhibit 13 states that "There are 7,581 unique individuals diagnosed with opioid use disorder (OUD) in our system with an additional 8,137 unique

individuals with multiple failed drug screens without a diagnosis or opioid prescription.” The population counts in this sentence are not drawn from the population of Cabell County and the City of Huntington, nor from the entire patient population of Marshall Health’s catchment area. The population at issue is instead tied to the target population of the grant application.

11. The parties should rely on Exhibit 11, not Exhibit 13, for the correct number of current, unique patients diagnosed by Cabell Huntington Hospital or Marshall Health clinics with opioid use disorder, among the residents of Cabell County and the City of Huntington (including the two Huntington zip codes in Wayne County), as listed in Marshall Health’s electronic health records.

12. Page 2 of Exhibit 13 refers to a roughly 1:1 ratio of unique individuals in Marshall Health’s system diagnosed with opioid use disorder, compared to unique individuals with multiple failed drug screens without a diagnosis or opioid prescription (7,581 to 8,137), for the population at issue in the exhibit. Based on my experience, the Marshall Health database would likely show a similar 1:1 ratio for residents of Cabell County and the City of Huntington. I would therefore estimate that roughly 8,000 current patients have failed multiple drug screening tests for the population described in Exhibit 11. In my deposition, I accurately testified that individuals with multiple failed drug screens without a diagnosis or opioid prescription are likely to have opioid use disorder. See pages 34-36 and 131-32 of my transcript.



13. I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on September 15, 2020



Todd Davies, Ph.D.



# Exhibit A



Ex C – Deposition Excerpts of Rahul Gupta, M.D., dated 09/11/2020

Plaintiffs' Supplemental Federal Rule Civil Procedure 26(a)(2)(C) Disclosures

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA

\* \* \* \* \*

THE CITY OF HUNTINGTON,

Plaintiff,

vs.

CIVIL ACTION  
NO. 3:17-01362

AMERISOURCEBERGEN DRUG  
CORPORATION, et al.,  
Defendants.

---

CABELL COUNTY COMMISSION,  
Plaintiff,

vs.

CIVIL ACTION  
NO. 3:17-01665

AMERISOURCEBERGEN DRUG  
CORPORATION, et al.,  
Defendants.

\* \* \* \* \*

Videotaped and videoconference deposition  
of RAHUL GUPTA, M.D., taken by the Defendants under  
the Federal Rules of Civil Procedure in the above-  
entitled action, pursuant to notice, before Teresa  
S. Evans, a Registered Merit Reporter, all parties  
located remotely, on the 11th day of September,  
2020.

1 about?

2 A. I'm sorry, can you repeat that, please?

3 Q. Sure. What is your understanding of this  
4 case? What is it about?

5 A. My understanding is that this case is  
6 related to the number of overdose deaths and  
7 generally the suffering and the carnage that has  
8 occurred broadly in the state of West Virginia, but  
9 narrowly in Cabell County and the City of  
10 Huntington as a result of oversupply as well as the  
11 over-availability of prescription opioids and the  
12 consequences resulting from that.

13 Q. And what is the basis of your  
14 understanding? How did you come to have that  
15 understanding?

16 A. As I had mentioned before, that including  
17 my work as the Commissioner for the Bureau of  
18 Public Health as well as the State's chief health  
19 officer, having worked in this area, having read  
20 the reports as well as public records and accounts  
21 and have been deposed and involved in the workings  
22 of the Department of Health and Human Resources of  
23 West Virginia, is how I come about to have that  
24 understanding.

1           A.     What I mean by "the volume" aspect is,  
2     clearly by the time I became Commissioner, it was  
3     becoming more relevant and more clear that there  
4     was a volume issue when it came to the deaths and  
5     the suffering on the streets.

6                     What that meant was, the overwhelming  
7     volume that was reaching the people of West  
8     Virginia was plainly involved in the killing of  
9     West Virginians almost every 12 hours around the  
10    clock, and that became important to us, as well as  
11    other sufferings that were occurring.

12           Q.     Volume of what?

13           A.     The volume of prescription opioid pills.

14           Q.     And what was the source of that volume?

15           A.     So the source of that volume clearly was  
16     coming from -- through the manufacturers and  
17     distributors into the state of West Virginia and  
18     then through the pharmacies, being dispensed into  
19     the hands of innocent public.

20           Q.     You said you also looked at what was going  
21     well and what was not going well. What did you  
22     think was going well?

23           A.     Well, by the time I came into the office,  
24     clearly we had passed some policies -- please mind

1 you, that these are downstream efforts. We were  
2 drowning, and we were trying - struggling - to do  
3 what we could do at a city, county and a state  
4 level to help people survive.

5 So what we did was, we had passed  
6 several pieces of legislation and policy that had  
7 made its way into commonplace, which means that we  
8 had by the time figuring out how to get physicians  
9 trained into understanding how diversion occurs,  
10 how they could prescribe more responsibly to  
11 prevent that diversion. Although they're trying to  
12 help the people that they're working with, meaning  
13 their patients.

14 We were looking at figuring out how to  
15 provide the antidote called naloxone into the hands  
16 of the public so they can actually get an  
17 opportunity to live.

18 We were trying to figure out how to  
19 control -- you know, provide limitations to the --  
20 some of the bad docs, and how do we go after those  
21 bad docs?

22 So there was a whole host of initial  
23 work that was happening in terms of downstream  
24 attempts to control what we could control, what was

1 within our hands, our power, to be able to do, at a  
2 cost that was overwhelming.

3 Because at the same time, we were  
4 having more and more children going to foster care.  
5 Our child welfare cost was rising at an enormous  
6 rate that we were having difficulty to control,  
7 controlling the budget for the state.

8 So we were at the edges of going  
9 bankrupt as a state, and primarily the crisis was  
10 being driven but through the volume that was coming  
11 up upstream to us.

12 So those were some of the things that  
13 we were attempting to do. We were also trying to  
14 do justice reform, criminal justice reform,  
15 reininvestments into -- because what we found was a  
16 significant proportion of people that were ending  
17 up incarcerated had substance abuse problems, and  
18 that was primarily the reason, and they were not  
19 being helped by being incarcerated and being in  
20 prison.

21 We were losing -- as I mentioned, every  
22 12 hours, we were losing a working West Virginian,  
23 never to come back again, so this was a  
24 transgenerational crisis.



1           You said you focus on the opioid --  
2     detailing the opioid crisis in that class. Does  
3     your investigation include the causes of the opioid  
4     epidemic?

5           A. We have a discussion on the description of  
6     charts and historical perspective. We created -- I  
7     ordered - as one of the first acts of being a  
8     Commissioner - a historical perspective report that  
9     - it's online available - of West Virginia's opioid  
10    crisis from 2000 to 2015 data.

11           I take several pieces of information  
12    from that report, that's a public report, done  
13    under -- I believe, it was Governor Justice. And I  
14    use that as an example to talk about historical.  
15    We talk about, obviously, all aspects/facets --  
16    it's a pandemic -- it's an epidemic of epidemics.

17           We talk about all the consequences that  
18    are happening. And then we talk about things that  
19    we're doing to solve. The bottom line is, we do  
20    talk about, you know, how we got here; but our  
21    focus often is: How do we fix this?

22           And we want, you know, in West Virginia  
23    our students to understand that while we didn't  
24    break it, we'll have to fix it. And we're going to

1 have to get together.

2 So whether it's the HIV outbreaks that  
3 happened in Cabell County recently -- which is the  
4 second-largest HIV outbreak in the nation's history  
5 recently, in Vienna, or the Hepatitis A outbreak  
6 that I personally dealt with during my tenure; or  
7 the highest levels of Hepatitis C.

8 We have a record in our country being  
9 first or second - compete with Kentucky oftentimes  
10 - and the highest levels of -- historic high levels  
11 of Hep B, which both transmitted through IV drug  
12 use and other aspects. 15 -- 13 to 15 times the  
13 national average.

14 We talk about those things. We talk  
15 about: How do you solve these problems? We talk  
16 about how do we prevent, you know, 5 percent of the  
17 babies that are born with neonatal abstinence  
18 syndrome in this state, and that costs a million  
19 dollars a baby. And that's a billion dollars - if  
20 you add the numbers - of an ongoing liability to  
21 the state every single year.

22 I produced a white paper to -- to the  
23 Senate finance chairman about that years ago.

24 So we talk about actual real issues,

1 But it doesn't talk about the entire  
2 demand/supply chain; it doesn't talk about  
3 manufacturing; it doesn't talk about production; it  
4 doesn't talk about quotas; it doesn't talk about  
5 distribution; it doesn't talk about pharmacies; it  
6 doesn't talk about dispensing; it doesn't talk  
7 about the transition to heroin and fentanyl.

8 It doesn't talk about how the  
9 transition has happened from prescription to  
10 actively illegal and illegitimate drugs; it doesn't  
11 talk about how the deaths transitioned to meth and  
12 other stimulants in addition to depressants.

13 So there's a lot of facets to this. As  
14 I mentioned before, my job was to get people in a  
15 simplified way to understand in a matter of 30 to  
16 40 minutes. So I could spend all day talking about  
17 it but I wouldn't have anybody listening to me,  
18 because they would all be gone.

19 Q. Sure. And I understand that this doesn't  
20 reflect the full description of the opioid problem  
21 in West Virginia or nationally. What I'm asking  
22 is: Does this reflect your discussion of the  
23 supply-side drivers, as you've written here, of the  
24 opioid epidemic?

1 findings, the evidence-based findings that we had  
2 from the social autopsy.

3 We found that even then - in 2016 - a  
4 significant amount of people who were dying had  
5 filled their prescription within 30 days of their  
6 death. We also found a significant type of people  
7 that were incarcerated and then released and then  
8 died, overdosed and died.

9 We found that three out of those four  
10 people that died tried to seek help before their  
11 time of death within the last year. We also found  
12 that there wasn't sufficient amount of naloxone  
13 that was being given to people to help them  
14 survive.

15 There weren't enough facilities that  
16 were available. So those are the kind of things  
17 that became important, and that was something that  
18 was not only done in West Virginia, but subsequent  
19 to that, we started receiving requests from states  
20 and large cities all over the country, because they  
21 wanted to repeat what we had done.

22 So we started providing temporary  
23 assistance to, you know, a handful of states at the  
24 time, but many more afterwards, and therefore the

1           A.     So the deaths were so bad, now they hear on  
2     the news, you know, that New York City has  
3     air-conditioned trailers out there for pandemic. I  
4     can tell you we had those back in 2015. We had  
5     dead bodies that were accumulating at a rate that  
6     we could not keep up at the medical examiner's  
7     office.

8                     So we had to get trailers that were air  
9     conditioned, and when we sort of figure out what --  
10    how do we say that, so we can keep the gracefulness  
11    of dead bodies. So we -- you know, we developed  
12    names, mobile units, blank lines so that when we  
13    explained to the public how we are doing it, we are  
14    speaking in a graceful way so it doesn't look like  
15    we are disrespecting the dead.

16                    But the fact of the matter was, we were  
17    putting bodies in trailers outside because we were  
18    so overwhelmed with the number of bodies that were  
19    coming in every single day.

20                    Now, on one hand, that was happening.  
21    That's carnal.

22                    The second side of this was, you know,  
23    our medical examiner offices inside Charleston had  
24    bullet holes in it. So that was the other

1                   When that diversion started to happen,  
2                   and it became a norm in the community - meaning  
3                   your children or grandchildren or other people;  
4                   they were there, they got it - friends and  
5                   families, then that caused those people to become  
6                   addicted to these medications.

7                   When that happened, then that diversion  
8                   led for those people to find ways to get those  
9                   prescriptions. So they would then figure out all  
10                  of the inappropriate prescribing began or continued  
11                  and really got voluminous at that point.

12                  So what then happens was: These people  
13                  were pushing through doctor shopping; they were  
14                  pushing through -- come out of the woodwork in so  
15                  many ways. There were lost prescriptions, you  
16                  know, getting and stealing from anywhere they can  
17                  steal from, and that just drove the volume -- that  
18                  continued to drive the volume.

19                  And that volume continued to get  
20                  diverted. So we got to a point where the  
21                  significant percentage of that volume that was  
22                  coming out was inappropriate, and the -- it  
23                  basically -- you know, the appropriate volume that  
24                  was appropriate at one point just dwarfed in front

1 of the extremely high amount of inappropriate  
2 volume, which is actually going towards diversion  
3 in all of these cases literally, and that as a  
4 result of that, the only way to get out of that was  
5 to die.

6 So once you have addiction and we --  
7 there were no -- an adequate amount of treatment  
8 facilities, because that hasn't been identified as  
9 an issue at the time, and the way you could get out  
10 of addiction is by dying, by overdose and dying.

11 So that was the -- that was what was  
12 happening at the time.

13 Q. All right. Let's talk a little bit about  
14 addiction. So how do you define "addiction"?  
15 What's your working definition?

16 A. So the way these medications -- I can just  
17 broadly first of all say addiction is a process  
18 that can be physical or physiological in nature  
19 where your body gets used to whatever that  
20 substance is and wants to have it -- desires it a  
21 lot more.

22 Now, it can result in both a physical  
23 addiction as well as a psychological addiction,  
24 either or both.

1           Speaking of the opioids in specific,  
2   when we take opioids, we have this very basic  
3   foundational understanding of the brain. There's  
4   our inner brain or the fundamental places of the  
5   brain, you know, there's stimulus that allow us to  
6   survive.

7           What that means -- what I mean by that  
8   is it exists in all animals. You -- you feel  
9   hungry, there's a reason you eat, because when you  
10   eat, you feel good.

11          The reason you feel good is that  
12   there's a release of this chemical called Dopamine.  
13   So same way, when you're thirsty, you drink. The  
14   result of that drinking water is that your Dopamine  
15   gets released and tells you -- that's a positive  
16   reinforcement for you.

17          Same way with sexual activity. So  
18   there are a few things that are important to our  
19   survival as human beings, or any animal. The way  
20   we get rewarded, the reward system, is by this  
21   Dopamine release and it makes us feel good.

22          Now, these medications, seem to work  
23   similarly. But what they do is basically they  
24   hijack that system. And so in that hijacking, that



1 inner brain that is causing the release of  
2 Dopamine --

3 Initially the morphine - actually, or  
4 opioid of any type - makes you release that  
5 Dopamine, and you feel good.

6 After a while, it doesn't work as well.  
7 And then you start to require an escalation of the  
8 dose. And so basically that inner brain, if it  
9 doesn't get that, it asks your outer brain in some  
10 way - it's a prefrontal cortex - to do things, to  
11 change its behavior in ways in order to seek that  
12 drug to supply it.

13 So after a while, it's not just about  
14 getting high; it's actually about surviving and not  
15 getting withdrawal symptoms. So typically, if you  
16 don't do it, the inner brain is going to punish  
17 you.

18 And a person is fearful of that  
19 punishment, so that inner brain sends messages to  
20 the outer brain to say, "Hey, I need you to go and  
21 engage in activity" - whether that's stealing,  
22 prostitution, other aspects - "in order to feed me  
23 the habit to continue with the drugs."

24 And that's why when we say it isn't an

1 addiction, it's a disease, it's not a will -- it's  
2 not something that people can will to do. Maybe it  
3 was a will the first couple of times; but  
4 afterwards, it's not. It truly is a disease,  
5 because that inner brain basically hijacks the rest  
6 of your brain and the rest of your body.

7 Q. All right. So is it fair to say - and you  
8 tell me if I'm wrong about this - that when people  
9 become addicted; when they're not able to get what  
10 they can to fill the addiction that they -- the  
11 brain tells them, "Go out and do anything you can  
12 to fill that need."

13 A. Yes.

14 Q. And does that, in your opinion -- or do you  
15 have an opinion whether that leads to things like  
16 diversion and further abuse of drugs and adverse  
17 consequences of addiction?

18 A. So at that point, that person is not in  
19 control of themselves. Their inner brain has  
20 hijacked the entire body. At that point, this  
21 monster inside is telling them to seek opioids in  
22 one form, shape or other.

23 Whether it's for them to divert the  
24 prescription pills; it's for them to fake a

1 the monster is off their head.

2 "Now when I go to my family, I can  
3 actually have a conversation and remember it with  
4 my family. I can start to feel feelings. I feel  
5 I've come back from death. I can watch television,  
6 I can remember and I can understand what's  
7 happening."

8 So that piece -- it allows these  
9 medications allow you not to worry about just  
10 seeking your next fix; it allows you to actually  
11 get a job, have a purpose in life, rebuild your  
12 community, rebuild your family and actually be able  
13 to function.

14 Q. All right. So turning back to the  
15 evolution of this opioid problem in West Virginia,  
16 did you at some point see an evolution, a change,  
17 from opioids to heroin?

18 A. As I came in as the Commissioner in 2015, I  
19 think that evolution was occurring. I think we  
20 were starting to see some of the laws that had been  
21 taking place in 2012-2013 -- certainly Governor  
22 Tomblin had initiated the Governor's Advisory  
23 Committee on Substance Abuse and some of the  
24 results were happening.

1                   So we had a sliver of hope at the time  
2           that, "Listen, I think we're starting to see a  
3           light at the end of the tunnel" in the sense that,  
4           look, we're seeing slight reductions, and that's in  
5           the presentation you saw where I showed from 2015  
6           to 2016, we went down 15 percent.

7                   So we were becoming very hopeful that  
8           now perhaps the deaths will follow, meaning  
9           reduction in deaths and suffering and other things.

10           Q.     I'm sorry, you said reduction -- reduction  
11           in --

12           A.     Reduction in deaths.

13           Q.     I'm sorry, you said you saw a slight  
14           reduction --

15           A.     Reduction in prescriptions. So we started  
16           to see from 2015 to 2016, about a 15 to 20 percent  
17           reduction in opioid prescriptions.

18           Q.     Okay.

19           A.     And then we were hopeful that we would  
20           start to see a reduction in deaths. But we didn't.  
21           And then we started to search that why that we're  
22           seeing reduction in prescribing but we're not  
23           seeing reduction in the deaths from overdose; we're  
24           not seeing significant reduction in the substances

1 of overdose people when they died.

2 And one of the elements that was  
3 happening at the time that, again, now it's easier  
4 -- a little bit more easier to recognize, is that  
5 every time law enforcement would go and do a drug  
6 bust of the bad docs, those people would end up on  
7 the street that once were addicted to medication --  
8 prescription medications, now would have to find --  
9 seek and find an alternative, and they would go to  
10 the street.

11 And then they started to use IV drugs,  
12 heroin. That was not the only reason it was  
13 happening. It was also because the supply of  
14 prescription drugs from a diversion standpoint was  
15 drying up a little bit.

16 So as the diverted drugs - opioid  
17 prescription drugs - were drying up, then people  
18 still needed that fix, as I explained the addiction  
19 pathway. That doesn't solve the problem. We were  
20 too naive to think just reducing the prescription  
21 -- diversions would just cure the problem.

22 And what actually happened is the  
23 opioid crisis began to evolve -- evolve into a  
24 second crisis, which would then started to become

1 this heroin crisis. As we were dealing with that  
2 current crisis within the first, a third crisis,  
3 which is --

4           You know, everyone asking -- you know,  
5 wanting to make most profit from its product, and  
6 we saw the -- this happen, the phenomenon happen,  
7 with -- where people were dealing heroin, frankly.  
8 So they found -- they realized that they could get  
9 a bigger profit if they were -- if they could cut  
10 their heroin with another substance that could  
11 still give the high or give the need that needs to  
12 be fed to the people.

13           That was called fentanyl. It was a  
14 clandestine lab-produced fentanyl that's about 50  
15 to 100 times more potent than morphine. So they  
16 would -- they began to cut the heroin with this  
17 substance on the street.

18           The problem that became for people who  
19 are addicted is: A, they wouldn't know that; the  
20 second, B, every time they inject themselves, not  
21 only are they risking HIV or hepatitis or what have  
22 you, but they're also basically playing Russian  
23 roulette with their life, because they wouldn't  
24 know if this is the time they were going to die/

1 overdose.

2 This stuff was so potent that some of  
3 our law enforcement officials, sometimes they  
4 happened to inhale or touch it and they would be  
5 overdosed.

6 So I saw a lot of people who had  
7 addiction, they didn't want to die. Neither did  
8 the drug dealers want them to die. So what they  
9 started to do, as a cry out for help, they would  
10 actually go to restaurants, they would go to gas  
11 stations, they would go to malls in the bathrooms  
12 and inject themselves just so they could be found  
13 if they played the Russian roulette and the gun got  
14 fired.

15 So we started to find dead bodies in  
16 those places as a result of that. So that's the  
17 evolution. That's when I came into the office and  
18 I was seeing on literally on a daily basis.

19 Q. So do you have an opinion based upon  
20 everything you've done in your work in West  
21 Virginia and your background, training and  
22 experience as to whether or not the abuse of  
23 heroin, fentanyl, methamphetamines and these  
24 cocktail drugs that you saw in the 2014 to 2018

1 time frame was a -- was caused by the original  
2 opioid volume that you saw that resulted in these  
3 addicted people.

4 A. So for a majority of them. There would  
5 always be a small portion of people who will have  
6 and seek, you know, various forms of addictive  
7 substances. That's been true for civilizations  
8 over time.

9 But for the majority of them, there's  
10 no doubt in my mind that there's a direct  
11 correlation between the diverted prescription pills  
12 and its evolution into street drugs in terms of  
13 heroin, fentanyl, meth, you name it.

14 Q. And when you say "a majority," are you able  
15 to quantify that any further in terms of if you  
16 take 100 percent as total, were you able to  
17 quantify it any more specific than that?

18 A. When I say "majority," I'm really talking  
19 about 80 to 90 percent of the population that  
20 actually suffered through this. Because if you go  
21 back and look at the overdose death rate numbers,  
22 prior to this epidemic, it would be like that,  
23 Counsel, to get that -- that's where I would go  
24 back.



1           A small amount of people -- certainly  
2     those, the noninvolved people - that would be a  
3     general baseline - do not tend to be generally also  
4     the population that dies. They tend to be people  
5     that would use one form of drug or the others - a  
6     tiny population, proportion - that has existed, as  
7     I said, through civilization, hundreds of years,  
8     thousands of years.

9           But that is minuscule as compared to  
10    what we're dealing with today.

11       Q.    And in terms of overdose deaths, you do  
12    have knowledge from your work as to the number of  
13    overdose deaths -- overdose deaths in West Virginia  
14    from, let's say, 2004 until 2018 when you left. Is  
15    that true?

16       A.    Yes. I mean, I'm trying to recall the -- I  
17    mean, I can recall that in 2017, we finally passed  
18    the 1,000 number, which was not only the -- one of  
19    the highest rates ever, but it was consistently  
20    about 33 percent higher than the second state --  
21    and the second state varied. Sometimes it was New  
22    Hampshire, sometimes it was Ohio, sometimes it was  
23    Pennsylvania.

24           But we could -- what didn't change was:

1 We were high and there's a bunch of lots of states,  
2 and then it was the next state in line.

3 Q. And do you have an opinion as to whether  
4 the increase in overdose deaths West Virginia saw  
5 during that time was caused by the large volume of  
6 opioid pills that originally was deposited or  
7 delivered to West Virginia?

8 A. I think there's no doubt for that.

9 Q. Now, are NAS babies a causative issue in  
10 terms of the opioid epidemic?

11 A. Yes.

12 Q. So what is an NAS baby?

13 A. So NAS stands for neonatal abstinence  
14 syndrome, also sometimes called Nows, or neonatal  
15 opioid withdrawal syndrome. We try to  
16 differentiate between opioids and other substances.

17 But in essence, it's a -- it's a  
18 syndrome, it's a set of symptoms that could happen  
19 in a baby as soon as they're born to a few hours or  
20 days afterwards.

21 Those symptoms could include incessant  
22 crying, not being able to be fed, being over  
23 irritable. They can have seizures. They can have  
24 diarrhea.

1           And unfortunately, in the early part  
2       especially of the crisis, they could die. It is --  
3       we saw that it was directly linked, and here's why:  
4       As we saw the total amount of diverted drugs  
5       increase, we also saw a similar increase in the  
6       number of pregnant women that were taking these  
7       diverted drugs.

8           The pregnant women are still part of  
9       the same community, part of the same population.  
10      They're no different. So it would be an  
11      extraordinary thing to think that they would behave  
12      differently.

13          As they were also taking -- at one  
14      point, one in four pregnant women were taking some  
15      of these diverted medications. As they do, they  
16      become addicted, and as they develop the addiction,  
17      and continue to feed their addiction, so is the  
18      baby getting the same medications through the  
19      placenta while the baby is in the womb.

20          So the baby's brain, now imagine, is  
21      also being fed through the same mechanism. This  
22      developing new life inside the womb is also getting  
23      the same line of feeding of opioids through the  
24      bloodstream of the mother.

1           So its brain is also -- not only not as  
2    -- it's not -- it's supposed to be developing right  
3    when it's not only -- we don't know a lot about how  
4    it develops in the presence of opioids, but it's  
5    developing the same time as being confounded by  
6    these opioids.

7           So as the cord gets cut, meaning the  
8    placenta gets cut and the baby gets delivered, that  
9    baby goes into withdrawals. It's literally the  
10   equivalent of a withdrawal. We know that because  
11   we treat the withdrawals by various mechanisms, but  
12   one of the mechanisms -- the pharmaceutical  
13   mechanism to treat it, is through morphine. Giving  
14   the baby morphine.

15           I mean, it's one of the last resorts,  
16   but that's one of the ways we do it. So what we  
17   don't know about neonatal abstinence syndrome yet -  
18   because there's a lot of work going on - is: These  
19   are the immediate side effects.

20           We have also seen some associations  
21   with birth defects, like heart defects, gastric  
22   defects. We also have had some literature that  
23   shows there's defects in hearing, vision, other  
24   aspects.

1                   Now, when I was speaking to schools,  
2                   officials, teachers, parents, oftentimes they would  
3                   tell me that in 2015, some of those babies that  
4                   were born in 2006, '07 would be then eight, nine,  
5                   ten years old and they're getting to a point and  
6                   they're --

7                   What is happening to the babies now is:  
8                   These teachers would tell me that "We have these  
9                   kids," it's called -- you know, opioid babies, they  
10                  are now being -- "they are not able to control  
11                  their impulse. They're not able to keep attention.  
12                  So they're having some version of attention deficit  
13                  disorder; they're having impulse control issues."

14                  So because that's a problem and  
15                  teachers' job is to teach, they were referring to  
16                  the parents -- if there were parents. Because in  
17                  often cases, these kids got moved around three,  
18                  four, five times a year in the school system.

19                  And they were often within foster care  
20                  or the care of grandparents or great-grandparents  
21                  at times. But then they ultimately end up in the  
22                  doctor's office, at a pediatrician, and the  
23                  pediatrician would diagnose them oftentimes -  
24                  erroneously or let's just say through symptoms -

1 with ADD, and guess what happens then?

2 These kids get prescribed another  
3 addictive potential drug called Adderall.

4 So then we basically -- we already know  
5 that kids who are born with NAS have a high  
6 predilection to get -- to become addicted in the  
7 future. And now through the system, we're actually  
8 providing them the same drugs that they actually  
9 have a further habit with.

10 So we're actually setting up these kids  
11 to fail in life, and this is a huge problem in West  
12 Virginia. We're talking about 5 percent of the  
13 entire population. It's a huge number. And then a  
14 higher percentage perhaps in Cabell County and  
15 Huntington.

16 So all these kids -- we don't even know  
17 what the long-term consequences will be. Will they  
18 be able to adjust in society? Will they be able to  
19 have sustained social interaction and enjoy life  
20 the same way as others? We don't know that.

21 But we do know that there are some  
22 short and long-term consequences of NAS.

23 Q. Has anybody tried to -- you or anybody you  
24 know tried to quantify the cost of the effects of

1 earth that you will find, warm people wanting to  
2 chip in and help give you, you know, a shirt from  
3 their back, if they can. If they're wearing a  
4 shirt --

5 And they was -- everybody was in as a  
6 team, had the best intentions with limited  
7 resources, and we were struggling every day to help  
8 do everything within the power of our state as well  
9 as individuals, their capacity, to find those  
10 solutions.

11 So we did everything possible. We left  
12 no corner unturned in order to find solutions. But  
13 once again, this seemed to have fallen short in our  
14 expectations each time, because it's very difficult  
15 - and very inefficient, to be honest - to provide  
16 and spend that amount of money when this can be and  
17 could have been prevented upstream.

18 Q. Okay. Now, you talk about -- a little bit  
19 about this transition from opioids to heroin, and  
20 what I'd like to do is ask you some more questions  
21 about that. In terms of heroin in connection with  
22 the opioids, is there some chemical somewhere --  
23 why would people take heroin as opposed to opioids?

24 A. Well, basically heroin -- when you take

1 street heroin, it breaks down into two compounds  
2 and both are active, and one of those is morphine.  
3 So heroin is basically nothing but a form of  
4 morphine. It is the same chemical release.  
5 They're all related. They work through the same  
6 receptors, and the body cannot tell one from the  
7 other.

8 And so chemically speaking, you know,  
9 you could have synthetic opioids; you could have  
10 semi-synthetic; you could have natural opioids.  
11 But to the body that needs to feed the need, it's  
12 the same compound.

13 And so chemically speaking, what you  
14 write in the prescription pills, again it's the  
15 same feed -- the feeding mechanism is the brain.  
16 It does not discriminate.

17 Q. Right. So it's your opinion that heroin --  
18 if someone went to heroin, that would satisfy the  
19 need created by an opioid addiction?

20 A. Absolutely.

21 Q. All right. In terms of the number of  
22 opioid addicts that transitioned to heroin, is  
23 there any way for us to quantify in terms of the  
24 total number of people that would be moving to



1 Q. Doctor Gupta, this is Anne Kearse with the  
2 City of Huntington and Cabell County as well. I  
3 only want to follow up with a couple of things that  
4 I believe you testified about today and just make  
5 sure I've got the documents or the reports that you  
6 issued correct.

7 MS. KEARSE: Monique, can you pull up  
8 the first -- August 17, 2017 document? And I'll  
9 mark this as, I guess, Plaintiff's No. 1 for the  
10 purposes of this deposition.

11 PLAINTIFF'S EXHIBIT NO. 1

12 ("West Virginia Drug Overdose Deaths  
13 Historical Overview dated August 17,  
14 2017 was marked for identification  
15 purposes as Plaintiff's Exhibit No.  
16 1.)

17 Q. Doctor Gupta, you testified today about an  
18 historical overview since 2001 to 2015 of drug  
19 overdose deaths. Is that correct?

20 A. It's, I believe, 2000 to -- yeah, yeah,  
21 that's -- thank you for that. Yes.

22 Q. Okay. And that's -- and that's what -- I  
23 just wanted to make sure for the record that  
24 this --

1 MS. KEARSE: Monique, wait a second,  
2 please.

3 Q. -- that this document, cover page "West  
4 Virginia Drug Overdoes Deaths Historical Overview  
5 2001-2015" is a report that you were referring to  
6 today. Is that correct?

7 A. That's correct.

8 MS. KEARSE: And Monique, if you'll go  
9 to the second page, just for the record.

10 Q. This is a report that obviously your name  
11 is on there, Doctor Gupta, as the Commissioner for  
12 the Bureau of Public Health, the State Health  
13 Officer. Is that correct?

14 A. That's correct.

15 Q. And you were involved not only in working  
16 on the analysis and reported here of this, but you  
17 were doing this in the capacity of your role as  
18 Commissioner of the Bureau for Public Health. Is  
19 that correct?

20 A. Yes, I ordered the commission of this  
21 report.

22 PLAINTIFF'S EXHIBIT NO. 2

23 ("2016 West Virginia Overdose Fatality  
24 Analysis" was marked for

1 identification purposes as Plaintiff's  
2 Exhibit No. 2.)

3 Q. And then Doctor Gupta, I believe also  
4 Plaintiff's No. 2, in your capacity as the  
5 Commissioner for the Bureau of Public Health, state  
6 of West Virginia, I believe you also testified  
7 about a 2016 overdose fatality analysis?

8 A. Yes, and I have submitted that, I believe,  
9 as part of the documents that I was requested to  
10 provide.

11 Q. Okay.

12 MS. KEARSE: And just for the record,  
13 Plaintiff's Exhibit No. 2, is this the report and  
14 analysis that you were referring to in your  
15 testimony earlier today titled "2016 West Virginia  
16 Overdose Fatality Analysis"?

17 A. Yes.

18 MS. KEARSE: And Monique, if you'll go  
19 to page No. 2 on that.

20 Q. And that's also -- you appear on that as  
21 the Commissioner for the Bureau of Public Health;  
22 is that correct?

23 A. Yes.

24 Q. And in your -- both of these reports, these

1           A.     I cannot be as certain of that - I can make  
2     an assumption - but if there were any fraudulent  
3     prescriptions, I could not -- I could not tell you  
4     in a verified way.

5           Q.     So as far as assuming that the  
6     prescriptions were written by prescribers and did  
7     not include fraudulent prescribe -- prescriptions,  
8     were the prescribers -- they would have been  
9     licensed by the state of Virginia, correct?

10           MR. COLANTONIO:   Object to the form of  
11     the question.

12           A.     It is possible, plausible, but not for  
13     sure.   And the reason I say that is because what I  
14     -- we found was that those decedents who went to  
15     three or more pharmacies -- four or more  
16     pharmacies, were 70 times -- I'm sorry, were 70  
17     times more likely to have died.

18                   What that means is -- so let me repeat  
19     that.   So it says here, the decedents that were  
20     more -- 70 more times likely to have a prescription  
21     as four more pharmacies that died.

22                   What that means is because we were  
23     sharing data with CSMP with cross border states,  
24     some could have obtained it in doctor shopping,

1 to stand on. It's in the context of an opioid  
2 crisis that has transitioned now killing West  
3 Virginians from opioid prescription drugs to heroin  
4 to cocaine, and we've established that as we went  
5 through.

6 And now to take that out of context and  
7 to act like opioid prescriptions have nothing to do  
8 with it is unfair and not really in context, so I  
9 take offense to that fact that we're taking pieces  
10 and trying to cobble those together instead of  
11 actually allowing a fair opportunity to be  
12 explaining what actually happened in West Virginia.

13 So I -- that's the piece that I think  
14 that is unfair.

15 Q. Has alcohol use disorder been a long-term  
16 -- long-standing challenge in West Virginia?

17 A. Yes, an alcohol disorder within -- which I  
18 will discuss as a very different challenge in many  
19 of the states, and we've already talked about today  
20 earlier how there will be always a level of  
21 population where there will be addictive behaviors.

22 So now to take that out wouldn't be  
23 fair because alcohol -- alcoholism and alcohol  
24 challenge did not rise by thousands of percent over

1 a decade. Opiate prescription drugs and volume of  
2 that did rise.

3 Alcohol did not contribute to killing  
4 West Virginians in this way. Opioid drugs did. So  
5 it would not be fair to blame alcohol for the sins  
6 of the volumes that have killed West Virginians.

7 Q. And just to be clear, Doctor, I'm not  
8 trying to do that. I'm just trying to understand  
9 the prevalence of alcohol use disorder in West  
10 Virginia. Would you agree --

11 A. But you -- sorry. If you are wanting to do  
12 that, then we would be sharing data from CDC, from  
13 behavior risk to factors surveyed on the prevalence  
14 of binge drinking. We would be in a way different  
15 area right now than what we are doing picking and  
16 choosing pieces to cobble together.

17 This is not the type or the veracity of  
18 data, I'm -- you know, you can look up and you can  
19 see the West Virginia alcohol use data. I have the  
20 surveys of those, and I can tell you this is not  
21 where you go to look for that data.

22 Q. So to be clear, you are not sure about the  
23 accuracy of the data that is represented in this  
24 publication that was published by the West Virginia

Ex D – Deposition Excerpts of Michael Kilkenny, M.D., dated 07/21/2020

Plaintiffs' Supplemental Federal Rule Civil Procedure 26(a)(2)(C) Disclosures

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA

\* \* \* \* \*

THE CITY OF HUNTINGTON,  
Plaintiff,

vs.

CIVIL ACTION  
NO. 3:17-01362

AMERISOURCEBERGEN DRUG  
CORPORATION, et al.,

Defendants.

---

CABELL COUNTY COMMISSION,

Plaintiff,

vs.

CIVIL ACTION  
NO. 3:17-01665

AMERISOURCEBERGEN DRUG  
CORPORATION, et al.,

Defendants.

\* \* \* \* \*

Videotaped and videoconference deposition of  
DR. MICHAEL KILKENNY taken by the Defendants under the  
Federal Rules of Civil Procedure in the above-entitled  
action, pursuant to notice, before Teresa L. Harvey, a  
West Virginia notary public and Registered Diplomate  
Reporter, the witness appearing via videoconference from  
Charleston, West Virginia, on the 21st day of July,  
2020.



<p style="text-align: right;">Page 74</p> <p>1 to that.</p> <p>2 Q. How about at present? At present day, which</p> <p>3 poses a bigger problem?</p> <p>4 A. Which -- I suppose it depends on what you're</p> <p>5 calling a problem. The driver for -- for systemic and</p> <p>6 deep tissue infections, or HIV risk, or hepatitis C</p> <p>7 risk, or overdose deaths would be injection drug use.</p> <p>8 Q. Okay. Just as a relative percentage of the</p> <p>9 clients you serve or the people you interact with, what</p> <p>10 percentage of people at present -- you know, ballpark --</p> <p>11 have their primary drug of choice as an oral opioid</p> <p>12 versus an injectable opioid like heroin?</p> <p>13 A. That's a good question. I might ask that to</p> <p>14 be more specific, but perhaps my concepts of that might</p> <p>15 be more specific than your concepts of it.</p> <p>16 Q. Well, give me -- give me your concepts, and</p> <p>17 then later in the deposition maybe we'll look at a few</p> <p>18 documents, some surveys where people report their</p> <p>19 primary drug of choice. But if you can just give it to</p> <p>20 me broadly in your concepts, I'd be curious to hear it.</p> <p>21 A. In my concepts, I deal almost exclusively with</p> <p>22 injection drug users. And I know that the injection</p> <p>23 drug users use oral and injection drugs. And I have</p> <p>24 some knowledge of general classes of that use, but I</p>	<p style="text-align: right;">Page 76</p> <p>1 tracked. And I never saw in some of that data you track</p> <p>2 looking at whether somebody was a previous opioid user.</p> <p>3 So do you know if there's any reports you guys have or</p> <p>4 any datasets that would house the information that you</p> <p>5 just described?</p> <p>6 A. We have information from interview on when</p> <p>7 people started using drugs and when people started</p> <p>8 injecting drugs, and that is -- and so we know that</p> <p>9 interval.</p> <p>10 Q. Do you -- do you document these interviews</p> <p>11 anywhere, compile that broader set of data from the</p> <p>12 interviews, to come up with certain percentages or</p> <p>13 anything like that? Or are you just referencing sort of</p> <p>14 informal communications that you know about when folks</p> <p>15 come in, say, to your Harm Reduction Program, needle</p> <p>16 exchanges?</p> <p>17 A. No. We have some of that information based on</p> <p>18 a survey that we have used, what we would consider an</p> <p>19 intake data sheet, among our Harm Reduction Program</p> <p>20 participants. But we also have data from -- that's been</p> <p>21 published with some regard to that, probably not as</p> <p>22 specific as the date of first use and the delay to the</p> <p>23 injection. That might be in one of our publications.</p> <p>24 Q. Okay. Do you know, to the best of your</p>
<p style="text-align: right;">Page 75</p> <p>1 don't -- I don't have any great focus on oral drug use.</p> <p>2 Q. Why do you have no great focus on oral drug</p> <p>3 use? Why is that the case?</p> <p>4 A. My focus is on preventing the complications of</p> <p>5 injection drug use.</p> <p>6 Q. Is there anybody at the health department that</p> <p>7 has their primary focus on oral drug use?</p> <p>8 A. We have a general focus on oral drug use as a</p> <p>9 relationship to injection drug use, but no, we don't</p> <p>10 focus on the oral drug use.</p> <p>11 Q. And what is your understanding of the</p> <p>12 relationship between oral drug use and injection drug</p> <p>13 use?</p> <p>14 A. It is my understanding that the vast majority</p> <p>15 of people who are injection drug users started as oral</p> <p>16 drug users.</p> <p>17 Q. What is the basis for that understanding?</p> <p>18 A. That would be direct interview among people</p> <p>19 who inject drugs.</p> <p>20 Q. Is there anyplace where you -- or the health</p> <p>21 department saves or stores that information? And I'll</p> <p>22 just represent to you, because I've not seen it. What I</p> <p>23 have seen with the Harm Reduction Program is you don't</p> <p>24 use names, so there's not a lot of individual data</p>	<p style="text-align: right;">Page 77</p> <p>1 ability, the name of -- you mentioned intake data</p> <p>2 sheets -- the name of a document -- like if I needed to</p> <p>3 find the document that shows what you were just</p> <p>4 describing, the questionnaires or the surveys where</p> <p>5 folks are asked about current IV drug users or asked</p> <p>6 about previous opioid use?</p> <p>7 Do you know the name of that sort of</p> <p>8 report or document?</p> <p>9 A. You should probably have the -- the intake</p> <p>10 documents. I would -- I would think that you would have</p> <p>11 the Harm Reduction intake forms.</p> <p>12 Q. So it would have to be for each individual</p> <p>13 person who came in, like each individual intake form</p> <p>14 would have that information? Or is that aggregated into</p> <p>15 a broader report that covers various folks, like all</p> <p>16 comers, I guess?</p> <p>17 A. You're asking me -- my mind is -- because I</p> <p>18 don't have a specific knowledge of the individual</p> <p>19 questions like I used to, but I know that we -- another</p> <p>20 place you would find that data reported, there was a --</p> <p>21 there were two reports put out, probably one in 2016 and</p> <p>22 one in 2017, summarizing that data. And they were</p> <p>23 presented to the Board of Health, so they would be</p> <p>24 public, and they include -- I'm pretty sure they include</p>

20 (Pages 74 - 77)

<p style="text-align: right;">Page 90</p> <p>1 regulations governing distributors?</p> <p>2 A. I came to have some understanding of the</p> <p>3 regulations during the 2015 to 2017-18 type of time</p> <p>4 frame. I did not have an understanding -- I would say</p> <p>5 I didn't have that understanding prior to 2015, at the</p> <p>6 distributor level.</p> <p>7 Now, I was aware of places that were</p> <p>8 operating that were prescribing, I would say, probably</p> <p>9 too liberally to be legitimate, and that some pharmacies</p> <p>10 were distributing that, and that there were</p> <p>11 arrangements.</p> <p>12 Q. Do you know the names of any of the particular</p> <p>13 places of business or pharmacies, any details you can</p> <p>14 add about who those may have been and when they</p> <p>15 operated?</p> <p>16 A. I am aware of -- I'm not sure whether I should</p> <p>17 say I have firsthand knowledge. I have observational</p> <p>18 knowledge, and these sites have been named and</p> <p>19 prosecuted.</p> <p>20 Q. Do you recall the names of the sites?</p> <p>21 A. Well, the most particular one that I can</p> <p>22 recall is the Justice Medical Center in Kermit, West</p> <p>23 Virginia. And the pharmacy, it was my understanding</p> <p>24 they had a relationship with them to fill those</p>	<p style="text-align: right;">Page 92</p> <p>1 of physical dependence?</p> <p>2 A. Yes.</p> <p>3 Q. Were you aware at that time that opioids</p> <p>4 carried with them the risk of psychological addiction?</p> <p>5 A. Yes.</p> <p>6 Q. When you first prescribed an opioid</p> <p>7 medication, were you aware that this medication had a</p> <p>8 potential to be addictive?</p> <p>9 A. Yes.</p> <p>10 Q. Were you taught in medical school that opioids</p> <p>11 had the propensity to be addictive?</p> <p>12 A. Yes.</p> <p>13 Q. There are -- let me just ask a little bit more</p> <p>14 about your opioid prescribing. Do you know when the</p> <p>15 last time you prescribed an opioid was? Even roughly.</p> <p>16 A. Did you ask a question?</p> <p>17 Q. Yeah. I'm sorry. Do you know when the last</p> <p>18 time you prescribed an opioid was?</p> <p>19 A. Oh, I'm sorry. That would probably have been</p> <p>20 2015.</p> <p>21 Q. Okay. And how often in 2015 did you prescribe</p> <p>22 opioids? Was it a common class of medication you</p> <p>23 prescribed? Infrequent? How would you characterize</p> <p>24 your prescribing?</p>
<p style="text-align: right;">Page 91</p> <p>1 prescriptions.</p> <p>2 Q. How far is Kermit from Cabell County? I</p> <p>3 should probably know, but I don't.</p> <p>4 A. I'd say, when I drove it, it was 55 miles. I</p> <p>5 think I'm remembering that. Well, that was -- that was</p> <p>6 to Ceredo. It may be a little bit more to Huntington.</p> <p>7 Sixty miles.</p> <p>8 Q. Okay. Do you have any basis to believe that</p> <p>9 pills dispensed from the pharmacy that was servicing</p> <p>10 Justice Medical Center ended up back in Cabell County or</p> <p>11 Huntington?</p> <p>12 A. I have no firsthand knowledge of that.</p> <p>13 Q. Does the Cabell-Huntington Health Department</p> <p>14 have any access to the Controlled Substance Monitoring</p> <p>15 Program in West Virginia to track opioid use trends over</p> <p>16 time?</p> <p>17 A. At the -- at the population level, we do not.</p> <p>18 Q. I just want to ask about some risks of opioid</p> <p>19 medications and focusing on the time when you graduated</p> <p>20 medical school. Were you aware that opioids carry with</p> <p>21 them the risk of abuse?</p> <p>22 A. Yes.</p> <p>23 Q. Were you aware at the time you graduated</p> <p>24 medical school that opioids carried with them the risk</p>	<p style="text-align: right;">Page 93</p> <p>1 A. I would call it -- well, it was less than half</p> <p>2 the time, but certainly less frequent.</p> <p>3 Q. Did you say it was frequent?</p> <p>4 A. I probably wrote a prescription every day, but</p> <p>5 not to the majority of my patients.</p> <p>6 Q. Understood. What opioid medications were you</p> <p>7 prescribing in 2015?</p> <p>8 A. In 2015, we were prescribing -- we were</p> <p>9 prescribing oxycodone, usually as Percocet. We were</p> <p>10 prescribing hydrocodone, codeine. I think that Darvocet</p> <p>11 -- I think Darvocet was off the market by then.</p> <p>12 Q. How about any extended-release opioids like</p> <p>13 OxyContin or one of those -- one of those</p> <p>14 not-immediate-release variants?</p> <p>15 A. Say again.</p> <p>16 Q. Sure.</p> <p>17 A. Long acting?</p> <p>18 Q. Correct.</p> <p>19 A. Yes. Okay. Yeah. I was -- I was also a</p> <p>20 hospice provider in 20 -- I'm not sure exactly when that</p> <p>21 contract ended. It might have been early 2015. But</p> <p>22 certainly 2014, I was prescribing long-acting morphine,</p> <p>23 long-acting oxycodone, and even methadone.</p> <p>24 Q. How about outside of the hospice setting, in</p>

<p style="text-align: right;">Page 98</p> <p>1 A. -- I think that's probably consistent with the 2 late '90s. 3 Q. The marketing you just described, what -- what 4 group or what sorts of entities were responsible for 5 that marketing? 6 A. Well, my only experience with that would have 7 been the OxyContin marketing that was occurring. 8 Q. So marketing by a pharmaceutical company; is 9 that fair? 10 A. That's correct. 11 Q. And what was the result of the marketing, as 12 you saw it in your own experience? 13 A. I think that we saw direct increases in 14 prescribing, and we certainly began to doubt our 15 understanding of the condition of addiction, and we 16 began to reassess that, but I'm not sure we reassessed 17 it properly. 18 Q. So in -- describe that to me, what you mean by 19 "we began to doubt." What sorts of doubts did you have 20 and when did the doubts creep in? Just explain that a 21 bit more, if you can. 22 A. I think that we understood -- while we would 23 have disputed pain as a vital sign, we would recognize 24 that pain was a driver in seeking medical care and that</p>	<p style="text-align: right;">Page 100</p> <p>1 about the drugs? 2 A. I'm not familiar with the role of distributors 3 in that so I -- I have no firsthand knowledge of any 4 distributor being involved in that. 5 Q. Do you have any knowledge of heroin use within 6 Cabell County dating back prior to your tenure with the 7 department? 8 And what I'm trying to get at is, you 9 know, for example, New York City, there's a major heroin 10 problem in the '60s and '70s. Millions of people using 11 heroin. Do you know if there is any historical heroin 12 use in Cabell County that happened before the current 13 issue with heroin that's part of this current opioid 14 epidemic? 15 A. Yes, I do know that it was used and that -- 16 and I know that from treating people with complications 17 of its use dating back into the 1980s. 18 Q. Do you know at what levels heroin -- excuse 19 me, heroin was used in the 1980s compared to present 20 day? 21 A. I do not. 22 Q. Do you know whether there was a time period 23 where the heroin use from the '80s subsided and it was 24 no longer an issue?</p>
<p style="text-align: right;">Page 99</p> <p>1 it was under-treated or underappreciated by the 2 providers. So I began -- I think that we began to look 3 at things differently, and that would be a positive 4 outcome. The negative would be, and this would be from 5 my own experience, in beginning to doubt the training 6 that I received that this drug was addictive, then 7 believing what has probably been proven to be a faulty 8 conclusion from research, underestimating the addictive 9 nature of this class of drugs. And when we 10 underestimated its addictiveness, we made an error. 11 Q. And the "we" in that is prescribers in 12 general? 13 A. Yes. I'm speaking certainly for myself, but 14 other like-minded physicians that drew those 15 conclusions. 16 Q. And those conclusions you just described in 17 that answer about doubting what you had learned 18 previously about the addictive nature of the drugs, and 19 that these drugs could be used more broadly, did any 20 distributor -- any of the defendants in this case play 21 any role in changing the way you viewed opioid 22 medication when you compare the time you were in medical 23 school to the time you were discussing with the drug 24 reps coming in and providing the different messaging</p>	<p style="text-align: right;">Page 101</p> <p>1 A. If you're talking about Cabell County, I don't 2 know. 3 Q. So was there always some period of heroin use 4 in Cabell County? Well, let me back up. 5 OxyContin, the medication you described 6 of folks coming in to detail you about it in the 1990s, 7 wasn't on the market in 1980. Is that correct? 8 A. That's correct. 9 Q. But there was still some underlying problem 10 with heroin use in Cabell County, despite the absence of 11 OxyContin. Is that correct? 12 A. There was heroin use. There was injection 13 drug use prior to OxyContin. 14 Q. And do you know if there was any cyclical 15 nature in that intravenous drug use, whether there was a 16 period of time where the rate was higher or it dipped 17 down and got better, anything like that, historically 18 speaking, prior to OxyContin? 19 A. I don't know any data from Cabell County that, 20 you know, gives an indication of that. But there has 21 been national data published, and I believe that's what 22 you're speaking about. 23 Q. Yeah, well, do you know what that national 24 data says about the rates of heroin use over time, even</p>

<p style="text-align: right;">Page 102</p> <p>1 dating back prior to OxyContin's introduction to the 2 market? 3 A. I do believe that it has cyclical 4 characteristics, but I can't cite them. 5 Q. And do you know what steps were put into place 6 that put heroin use on a downward trajectory during the 7 time period prior to OxyContin's introduction to the 8 market? 9 What public health interventions took 10 place to tamp down heroin use? 11 A. Prior to OxyContin, I am aware that harm 12 reduction practices started, probably around the early 13 '90s, or around maybe as far back as the late '80s. 14 That was largely driven by attempts to reduce HIV, I 15 believe. 16 Q. What are the illegal opioids right now that 17 are contributing in any way to the opioid epidemic 18 within Cabell County? 19 A. What are the legal opioids? 20 Q. No, no, no. Just any opioids. Any opioids 21 that are contributing in any way to the current problem 22 within Cabell County. 23 A. I can tell you what we know about the drugs 24 that are being used by the injection drug users in</p>	<p style="text-align: right;">Page 104</p> <p>1 taken to address illegal fentanyl? 2 A. Illegal fentanyl? 3 Q. Yes. 4 A. We have the Harm Reduction. We've educated 5 about illegal fentanyl. We have also put out public 6 education regarding illegal fentanyl. We have worked 7 pretty diligently to attempt to get -- to encourage 8 people who are using -- well, who are injecting drugs to 9 stop injecting drugs and to receive treatment for their 10 substance use disorder. We've been very active in that. 11 Q. And has it been successful? 12 A. That would be a better question for 13 epidemiologists for a time from now to really fully 14 evaluate that, but I'm going to say yes. 15 Q. And why do you say yes? Why do you believe 16 that your intervention has been successful? 17 A. Well, we're looking at overdose data in 18 particular as an indicator of success, and we see that 19 in Cabell County, from 2015 to 2017, overdose deaths 20 rose, but from 2017 through 2019, they have declined 21 significantly. And that trend had not been observed in 22 all West Virginia counties. In particular, there are 23 some other counties that are reasonably similarly sized 24 that do not have the programs in place, and we've seen</p>
<p style="text-align: right;">Page 103</p> <p>1 Cabell County, to -- at least to some extent, how we -- 2 what would you like to know about that? 3 Q. Sir, I would just like to know what -- what -- 4 what drugs are they, in particular? And I'll just ask 5 you about, in particular, heroin, fentanyl, carfentanil 6 are the three that I was curious about whether you 7 believed they are currently contributing to 8 opioid-related issues in the county? 9 A. Currently? 10 Q. Yes. 11 A. Yeah, I don't know how much carfentanil there 12 is now. There's still fentanyl. There's some heroin. 13 Q. When you say "some heroin," has heroin use 14 declined recently? 15 A. It's my understanding that it has. It may be 16 increasing again. There was a time, probably in 2016, 17 2017, that heroin was difficult to obtain in its pure 18 form. It was either adulterated with fentanyl, or 19 actually was only fentanyl. And carfentanil really had 20 its appearance in 2016, and it may still actually -- I 21 actually haven't looked at the -- at the toxicology data 22 on that for 2019. Although I have gotten a set of it, I 23 haven't looked at it in any great detail. 24 Q. What -- what steps has your health department</p>	<p style="text-align: right;">Page 105</p> <p>1 their levels remain constant. 2 Q. When you say "decline significantly," what 3 does that -- what does that term "significantly" mean? 4 A. A decrease of 25 to 40 percent. 5 Q. And this success was achieved prior to, or I 6 guess -- let me back up. The plan we talked about 7 earlier that you met with attorneys to discuss, the 8 success that the health department had in dealing with 9 fentanyl abuse, that was -- that was done without 10 anything that's in that plan. Is that fair to say? 11 A. I think that that's fair to say. Look, what 12 we planned and what we made, because I served on that 13 committee, is we made -- I'm trying to think of the 14 word. I blocked on it right now. I'm sorry to have 15 lost that word. But in any -- in any epidemic or 16 natural disaster, you have an intervention phase and 17 then you have a -- a rebuilding phase after all the -- 18 Q. The resiliency Plan? 19 A. The Resiliency Plan. And you have a 20 resiliency plan that should be created for any event, 21 whether that would be Hurricane Katrina in New Orleans, 22 it would be appropriate for the planners to make a 23 resiliency plan of how you rebuild after that, develop a 24 budget and start making the -- setting up the programs.</p>

<p style="text-align: right;">Page 106</p> <p>1 So, as we have seen in Cabell County, 2 this decline, which we believe to be the result of a 3 comprehensive set of interventions, including increasing 4 the capacity for treatment of opioid use disorder, Harm 5 Reduction plays a role. Our naloxone distribution plays 6 a role. A lot of different agencies played roles in 7 this comprehensive plan. 8 Once we see that numbers are coming down 9 and we perceive that we have dealt with the maximum 10 effects, it's appropriate to build a resiliency plan. 11 And so that's what we built in that -- in that program. 12 Q. So you said, "When we perceive we've dealt 13 with the maximum effects." 14 Do you believe you're at that point now? 15 A. Yes, I believe so. 16 Q. What does that mean, exactly? 17 A. I think it would be -- I hope to God that we 18 have seen the worst of the overdose deaths. 19 Q. So you're coming down the slope from overdose 20 deaths; correct? 21 A. And we are doing that in a sustained fashion 22 consistent with the efforts that we put into it. So 23 that's why I feel like we're having that effect. Again, 24 that will be -- as you mentioned earlier, the cyclical</p>	<p style="text-align: right;">Page 108</p> <p>1 to have in that department? 2 A. I probably meant to say that we've reached the 3 maximum harm that it -- the indication of the worst time 4 when the most people were injured and died, we believe 5 that that might be passed. 6 Q. I understand. So you view that sort of the 7 worst is behind you, in other words? 8 A. I hope so. I thought I saw that before, but 9 ... 10 Q. When did you think you saw that before? 11 A. I thought I saw that in early 2016. That was 12 before fentanyl became the primary drug and carfentanil 13 was introduced. 14 Q. And fentanyl, carfentanil are more potent than 15 heroin; correct? 16 A. They are. 17 Q. And fentanyl and carfentanil were leading to 18 overdoses for people who, you know, would take heroin 19 and then have fentanyl and their respiratory system 20 couldn't deal with it. Is that -- is that accurate? 21 A. They died of overdoses at a higher rate 22 because of the more potent, and then also because of 23 shifts that fentanyl is injected more frequently than 24 heroin, and then the introduction of the injection of</p>
<p style="text-align: right;">Page 107</p> <p>1 natures of things, it's easy for people who are involved 2 to overestimate their influence. Later on, better 3 statistical public health analysis can be undertaken and 4 -- and those root-cause-effect type of issues can be 5 better described. 6 Q. Have you -- do you know now what the rate of 7 overdose is presently of heroin? 8 A. I do not. 9 Q. Do you know how it compares to the rate of 10 overdose prior to the introduction of OxyContin, you 11 know, back in the previous heroin epidemics? 12 A. I do not. 13 Q. When did your -- let me ask you this: Do you 14 believe there is still presently an opioid epidemic 15 within Cabell County? 16 A. Yes. 17 Q. So when you said you have reached maximum 18 effect, what does that mean? Is it -- is it achievable 19 to completely eliminate the opioid epidemic? 20 A. I'm not sure that we can eliminate the 21 disease, but we can reduce the numbers of cases; we can 22 reduce the harms associated with the -- with the use. 23 Q. And is that what you're saying, you think 24 we've reached the maximum level of effect you're going</p>	<p style="text-align: right;">Page 109</p> <p>1 methamphetamine, which can be injected even more 2 frequently than that. 3 More frequent injections leads to more 4 blood-borne pathogen transmission due to needle sharing. 5 So not only overdose deaths but also the increase -- or 6 the outbreak that we had in HIV all associated with 7 injection drug use and tied to changes and the evolution 8 of the opioid epidemic. 9 Q. We're going to talk about the Resiliency Plan 10 later, but I wanted to follow up on something. You 11 mentioned that, you know, after a disaster like Katrina, 12 for example, it's appropriate to draft a resiliency 13 plan. Did you review any other existing resiliency 14 plans before sending out the draft of the plans for 15 Cabell? 16 A. I reviewed the concepts of it to be included 17 in our Resiliency Plan, but I'm not the author of the 18 Resiliency Plan, so ... 19 Q. Who is the author? 20 A. The School of Medicine, the -- I always mess 21 up their name, but Division of Addiction Sciences. I 22 would say specifically, Dr. Petrany is the author. 23 Q. Okay. Up at Marshall? 24 A. At Marshall University.</p>



<p style="text-align: right;">Page 118</p> <p>1 contributing factor to the opioid epidemic in Cabell and 2 Huntington?</p> <p>3 A. I would say that's true, yes.</p> <p>4 Q. How about the existence of pain as the fifth 5 vital sign? Is that something that you saw increase -- 6 lead to an increase in prescribing of opioid 7 medications?</p> <p>8 A. I think that's a harder question, but as we 9 look at -- if I'm looking at that from a public health 10 lens and that it would be a policy that increased one 11 thing or decreased another, I would say that it 12 contributed, yes.</p> <p>13 Q. Are there any other contributing factors to 14 the opioid epidemic? Or -- strike that.</p> <p>15 Is there anything else, any other factors 16 that we haven't discussed, that you believe contributed 17 to the opioid epidemic in Cabell or Huntington, such 18 that you would testify at trial?</p> <p>19 A. You can ask me things that I have better 20 firsthand knowledge of. You did not ask me about any 21 role of the DEA, or the FDA, or oversight issues that I 22 don't have a really good firsthand knowledge of, but one 23 would have to suspect that there are other factors that 24 I really couldn't say I know one way or the other.</p>	<p style="text-align: right;">Page 120</p> <p>1 violation of any duty, such that they are a contributing 2 factor to the opioid epidemic? Is that fair?</p> <p>3 A. It would be fair for me to say that I don't 4 have firsthand knowledge of that. That is not my 5 jurisdiction.</p> <p>6 Q. Okay. Do you recall a period of time or an 7 event, say, in August of 2016 where there were 27 heroin 8 overdoses in four hours in Cabell?</p> <p>9 A. You're talking about August 16th?</p> <p>10 Q. Eighteenth, I believe, maybe. Or maybe the 11 article is dated the 18th. Let me pull it up. I'll 12 pull it up as an exhibit, if you hold on a minute.</p> <p>13 A. I'm being coy. I do remember that event.</p> <p>14 Q. I knew you would. And as soon as I doubted 15 you on the date, I said, I'd better clam up, because I 16 bet he knows better than I do.</p> <p>17 A. I know where I was when I got the call.</p> <p>18 Q. So that event that happened in August of 19 2016 --</p> <p>20 A. Now, we had published on that event, so there 21 is public knowledge of what we learned from that 22 investigation.</p> <p>23 Q. And you were quoted in one article, and I'll 24 just -- I'll mark this as an exhibit.</p>
<p style="text-align: right;">Page 119</p> <p>1 Q. So, to state it differently, other than what 2 we've discussed already in this deposition, you are not 3 going to testify that there are other factors that 4 contributed to the opioid epidemic in Cabell or 5 Huntington; is that correct?</p> <p>6 A. I would have to say that there is the 7 possibilities that someone else would ask me another 8 question that I would -- I would say that there are 9 other factors that we -- that -- I would say that what 10 we have discussed is probably not an exclusive list --</p> <p>11 Q. Okay.</p> <p>12 A. -- as to factors that contribute.</p> <p>13 Q. I'm just trying to get from you what you 14 believe the list is, the exclusive list. So what other 15 -- you mentioned the DEA.</p> <p>16 A. I would not be surprised to learn that -- that 17 oversight and violation of other laws contributed -- 18 that a failure of oversight and the violation of the 19 laws regarding distribution contributed. I am not an 20 expert on that, but I would not be surprised to hear 21 that.</p> <p>22 Q. Okay. So you don't have any firsthand 23 knowledge, for example, of whether or not the 24 distributor defendants in this case engaged in any</p>	<p style="text-align: right;">Page 121</p> <p>1 It's Tab 232 for you, Doctor. 2 KILKENNY DEPOSITION EXHIBIT 2 3 [A CNN Health article dated August 18, 4 2016, was marked for identification 5 purposes as Deposition Exhibit 2.]</p> <p>6 A. I've got the article open.</p> <p>7 Q. Yeah, it should have a big "CNN."</p> <p>8 A. I'm not specifically familiar with this, so 9 I'll be reading it.</p> <p>10 Q. Sure. Sure. And what I want to draw your 11 attention to is on the fourth page, you're quoted as 12 saying: "I can't speak directly to this case, but we 13 have been preparing for heroin laced with elephant 14 tranquilizers, which is the latest thing communities 15 close to us are dealing with."</p> <p>16 THE DEPONENT: Okay. Yeah.</p> <p>17 Q. Is that -- what is an elephant tranquilizer? 18 Is that carfentanil?</p> <p>19 A. That's carfentanil.</p> <p>20 Q. And is carfentanil the product that was 21 present in the heroin that led to this mass overdose 22 event?</p> <p>23 A. Yes, it was. And I didn't know that at that 24 time.</p>

Ex E – Deposition Excerpts of Christina Mullins, dated 07/14/2020

Plaintiffs' Supplemental Federal Rule Civil Procedure 26(a)(2)(C) Disclosures

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA

\* \* \* \* \*

THE CITY OF HUNTINGTON,  
Plaintiff,

vs.

CIVIL ACTION  
NO. 3:17-01362

AMERISOURCEBERGEN DRUG  
CORPORATION, et al.,

Defendants.

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CABELL COUNTY COMMISSION,

Plaintiff,

CIVIL ACTION  
NO. 3:17-01665

AMERISOURCEBERGEN DRUG CORPORATION, et al.,

Defendants.

\* \* \* \* \*

Videotaped and videoconference  
deposition of CHRISTINA MULLINS taken by  
the Defendants under the Federal Rules of  
Civil Procedure in the above-entitled  
action, pursuant to notice, before  
Teresa L. Harvey, a Registered Diplomat  
Reporter and West Virginia notary public,  
the witness appearing via videoconference  
from Charleston, West Virginia, on the  
14th day of July, 2020.



1 5 minutes. And they can pick any one of the witnesses  
2 that they want to choose.

3 Q. Okay. All right. So this was the written  
4 statement submitted. This is just, I guess,  
5 seven months ago, thereabouts, to the day, January 14,  
6 2020. And this was submitted by you to the committee?

7 A. Yes.

8 Q. Okay. And subcommittee. Okay.

9 Well, if you could turn to Page 2, in the  
10 first paragraph you state that: "The resources provided  
11 by both the state and federal governments have allowed  
12 West Virginia to transform the state's response to the  
13 opioid crisis."

14 Do you still feel that is true?

15 A. Yeah. There is a lot of evidence to support  
16 that we've been able -- we've accomplished a lot,  
17 despite the circumstances.

18 Q. Okay. Can you -- we may end up going into  
19 some of the details here, and I'll try not to be too  
20 repetitive, but can you just explain to me now what --  
21 you say that you've accomplished a lot. Can you explain  
22 to me what you've accomplished?

23 A. Sure. We have been able -- so, one of the big  
24 things to stick out was there was 197 residential

1 treatment beds a few years ago. That's all that we had  
2 in the entire state. Medicaid did not pay for  
3 residential treatment. The State of West Virginia  
4 invested other drug settlement funds into an account  
5 called the Ryan Brown account. That money was divvied  
6 out, and now we have, not just because of that  
7 investment but because of statewide interest and because  
8 of Medicaid's changes in payment, we have -- and I don't  
9 have the exact number, but it's around 850 residential  
10 treatment beds now as opposed to just 197, so that  
11 really does expand access.

12 We've been able to increase the number of  
13 prescribers for medication-assisted treatment by quite a  
14 bit.

15 We've distributed over 10,000 doses of  
16 naloxone to local health departments.

17 As you -- we've discussed earlier, the  
18 number of opioid prescriptions in West Virginia has  
19 decreased. We have really been able to also increase  
20 the number of treatment programs for women and children  
21 so that mothers and babies -- so that treatment can  
22 start with prenatal care and families be followed one to  
23 two years post-delivery.

24 We also have residential treatment

1 programs for mothers and babies now where moms can enter  
2 treatment and with their -- and keep their children with  
3 them and avoid foster care.

4 We have also established neonatal  
5 abstinence centers in West Virginia. We have two of  
6 those, I believe. So just the scope of -- of the work  
7 that's been done, the number of Quick Response Teams  
8 that have been added to the state, the number of  
9 treatment programs, the infrastructure that we've been  
10 able to build has really changed the system of care for  
11 West Virginia.

12 Q. Okay. Yeah, I believe you even say -- this is  
13 at the -- it's really the last full sentence on the page  
14 where you have stated some of the numbers that you've  
15 just testified to. You state that: With the  
16 Government's help -- this is in the fourth paragraph  
17 down, the paragraph that starts with "It's no secret."  
18 I believe it's the second -- third sentence you say:  
19 "With your help, West Virginia has reduced overdose  
20 deaths for the first time in 10 years. Opioid  
21 prescriptions have decreased by 48 percent. Opioid  
22 doses have decreased by 50 percent. Naloxone  
23 prescribing has increased by 208 percent. And  
24 additionally, we have distributed over 10,000 doses of

1 Q. Okay. On Page 7 -- I'm sorry, on page --  
2 yeah, on Page 7, second full paragraph down, I want to  
3 make sure this is just as of this year. You made note  
4 that, quote: "Every county and community in West  
5 Virginia has been impacted by the opioid crisis, with  
6 all able to document some level of need."

7 As we sit here today, is that a fair  
8 point that every community within the state of West  
9 Virginia has suffered at the hands of an opioid crisis?

10 A. Yes.

11 Q. And Commissioner Mullins, you testified today  
12 about some of the programs that have been put in place  
13 in response to the crisis. Is that correct?

14 A. Yes, I did.

15 Q. Would you agree with me that, as we sit here  
16 today, there's still a lot to do to address the current  
17 opioid crisis?

18 A. There is still a lot of work to do. We still  
19 have people who need to access treatment. We have  
20 children and families who are impacted by the crisis and  
21 we have kids that we want to make sure don't follow that  
22 same path of addiction.

23 Q. So, as we sit here today, we have not  
24 eradicated the opioid crisis in our communities?

1           A.    No.   We still have people needing treatment.  
2   We still have people experiencing fatal overdoses and  
3   nonfatal overdoses.

4           Q.    So it would be fair to say we still have a  
5   large population in our communities who are addicted to  
6   opioids?

7           A.    We still have people who are addicted to  
8   opioids.   I don't -- without data in front of me, I  
9   would be reluctant to add the descriptor.

10          Q.    That's fair.   That's fair.

11                   And Commissioner Mullins, you testified  
12   that there was some optimism that overdose deaths were  
13   going down in 2018.   You're still concerned about a rise  
14   of opioid death rates as we sit here today in 2020?

15          A.    I'm even concerned about what the data is  
16   going to show in 2019, and then again into '20, given  
17   the pandemic and what we're seeing across the nation.

18          Q.    And is part of that reason, although overdoses  
19   were going down, the fact that you may have overdoses in  
20   2019 or 2020 is because there are people addicted to  
21   opioids?

22          A.    Yes.   And I am worried about changes in what  
23   is available on the market as well, the fentanyl being  
24   available in cross -- in different drugs and the

1 different things that are happening on the street level  
2 concerns me greatly.

3 Q. Commissioner Mullins, you testified about the  
4 distributions of naloxone have increased by 208 percent  
5 and, to date, as of that testimony, you had distributed  
6 over 10,000 doses of naloxone to local health  
7 departments.

8 Do you recall that?

9 A. Yes.

10 Q. What is naloxone?

11 A. Naloxone is an overdose reversal drug that  
12 when someone is experiencing an opioid overdose it can  
13 be administered to reopen their airways and so they can  
14 get treatment. Or, sometimes, it will completely  
15 reverse it but they refuse transport for treatment.

16 Q. It's a lifesaving treatment for someone that  
17 overdoses?

18 A. Yes.

19 Q. And is it safe to say that communities are  
20 still facing overdoses and that naloxone is preventing  
21 them from dying?

22 A. In some cases, yes. We've really increased --  
23 even over the last three months, tried to increase the  
24 amount of naloxone available in communities.

1           A.    Yes, that was the highest rate as of the date  
2           of this testimony, yes.

3           Q.    And those rates are still increasing, even  
4           though there have been programs in place; is that  
5           correct?

6           A.    In 2018, the rate went down to 52, 53, I don't  
7           remember, but it dropped a little bit, which is why I  
8           felt a little bit more optimistic going into -- in the  
9           data, we saw a little more optimism. It had decreased a  
10          little bit for the 2018 death rate. About 2017 was the  
11          highest recorded at that time. We will see -- we're  
12          very interested and watchful for the 2019 data that  
13          should be released in the next few months.

14          Q.    And you also note that the loss of life is not  
15          the only impact of the crisis?

16          A.    Correct.

17          Q.    And I think you did testify that other things  
18          within the communities greatly impact the communities  
19          because of the opioid crisis, such as NAS?

20          A.    Yes. We're very concerned about the impacts  
21          to children and families, particularly for women who are  
22          pregnant and with a substance use disorder and/or may  
23          be, you know, in a relationship with someone with a  
24          substance use disorder. It affects that family's

1 ability -- may affect that family's ability to stay  
2 together. And we know that kids do better, families do  
3 better, when they're together. So we really worry about  
4 infants being separated from their parents in that first  
5 year of life, and then the subsequent downstream  
6 consequences of foster care involvement and just that  
7 breaking apart of that family unit.

8 Q. And in your testimony you also note that the  
9 NAS -- West Virginia led the nation in NAS. Is that  
10 correct?

11 A. Yes.

12 Q. And in regards when you just testified about  
13 foster care, you testified that foster care placement in  
14 West Virginia has risen 4,129 children from  
15 September 2011 to 6,895 in September 2019, an increase  
16 of 67 percent; is that correct?

17 A. Yes.

18 Q. And then you also mention that, in addition to  
19 loss of life and impact of families, the State has also  
20 seen an increase in infectious diseases.

21 Do you recall that?

22 A. I do.

23 Q. And is that still today you're seeing the  
24 opioid crisis include infectious diseases, including



1 hepatitis A and other diseases?

2 A. Yes.

3 Q. And all these impacts to the crisis still  
4 continue today, one way or the other, throughout the  
5 state of West Virginia?

6 A. We are still seeing these impacts, yes. With  
7 the caveat that, you know, as today COVID is changing  
8 things somewhat with some of the data. I do expect some  
9 of the data to change a little bit as a result of the  
10 pandemic, so, not these -- these things are still  
11 happening in communities. Overdoses are still  
12 happening. There's still infectious diseases in the  
13 communities as a result of us sharing needles and other  
14 behaviors associated with drug use.

15 Q. And Commissioner Mullins, even though the  
16 death rate may fluctuate, the communities are still  
17 faced with the devastation caused by the opioid  
18 epidemic?

19 A. We are going to be facing this for quite a  
20 while. And children that have lost their families of  
21 origin because of substance use disorder, the trauma  
22 that will happen as a result of that. We don't know  
23 quite fully the consequences of any or some of the other  
24 things that we could be facing down the road as a result

1 of this. It's going to impact generations of families.  
2 And even if we could cure all of the addiction, we're  
3 still going to be dealing with the mental health trauma  
4 and some of the other things that are going to be  
5 residual effects of the crisis.

6 Q. And would it be fair to say it's going to mean  
7 additional sources of funding and dollars in order to  
8 deal with these public health crises in the future?

9 A. It's likely going to need resources and I -- I  
10 am concerned about financial resources long-term,  
11 because, as I noted earlier, and I don't know what the  
12 grant profiles are going to look like in 3 years,  
13 5 years, 10 years down the road.

14 But we're also going to need humans who  
15 can participate in these workforces and be able to  
16 provide the supporting services, too. So it's -- it's a  
17 little bit of a -- there's a two-prong problem, from my  
18 view.

19 Q. And I thank you, Commissioner Mullins. I  
20 wanted to make sure in the testimony you weren't  
21 suggesting that the state of West Virginia has enough  
22 money to eradicate the opioid public health crisis as it  
23 exists today. Is that fair?

24 A. No, my testimony indicated that, for the first

1 Q. And I think what I understand what you're  
2 saying is that there is a key concerning that the grants  
3 will soon to be limited in time and sustainability in  
4 order to deal with future issues as a result of the  
5 opioid crisis?

6 A. Yes. I see this as a long-term concern.  
7 We're going to need to make long-term investments. As  
8 I -- you know, recovery relapse is a part of what we  
9 expect, so just because someone is in recovery right now  
10 and today is no guarantee that they might not relapse  
11 tomorrow or down the road. And so we have to plan to  
12 have those resources available in the future to be able  
13 to support people and to continue to support them  
14 through -- through recovery.

15 Q. And Commissioner, in addition to this, the  
16 State is doing what they can to help with the opioid  
17 crisis. Cities and communities have their own  
18 obligations and assessments of what they need to do for  
19 their adjusting to the opioid crisis. Is that fair?

20 A. Can you please repeat that? I'm sorry.

21 Q. Okay. I'll change it a different way.  
22 Although the State's been assisting various communities  
23 in their opioid crises, the communities themselves still  
24 are dealing with a crisis that they need to fund and

1 Q. And without going through the whole report, is  
2 it fair to say that the report does include an executive  
3 summary, a summary of key findings, and then the  
4 analysis that you and your colleagues put together for  
5 this report?

6 A. It does. That's the executive summary, and  
7 then we went through lots of tables and descriptions of  
8 tables.

9 Q. Would it be fair to say that the prescription  
10 opioids had a significant impact on the overdose deaths  
11 in the state of West Virginia from your analysis?

12 A. Yes, they did.

13 MS. KEARSE: Commissioner, I have no  
14 further questions. I appreciate your spending the day  
15 with us today.

16 MR. GARY: I have no further questions,  
17 just with the caveat that I expressed earlier there was  
18 some information that we discussed that we will be  
19 looking into. We reserve the right to ask some  
20 follow-up questions.

21 MR. FRANKS: This is Ray Franks for  
22 Cardinal. This deposition was cross noticed in the MDL,  
23 most recently by Plaintiffs' Cross Notice of Deposition  
24 No. 2, filed July 10, 2020. In light of that, Cardinal

Ex F – Deposition Excerpts of Lyn O’Connell, Ph.D., dated 07/31/2020

Plaintiffs’ Supplemental Federal Rule Civil Procedure 26(a)(2)(C) Disclosures

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA

\* \* \* \* \*

THE CITY OF HUNTINGTON,

Plaintiff,

vs.

CIVIL ACTION  
NO. 3:17-01362

AMERISOURCEBERGEN DRUG  
CORPORATION, et al.,  
Defendants.

-----  
CABELL COUNTY COMMISSION,

Plaintiff,

vs.

CIVIL ACTION  
NO. 3:17-01665

AMERISOURCEBERGEN DRUG  
CORPORATION, et al.,  
Defendants.

\* \* \* \* \*

Videotaped and videoconference deposition  
of LYN O'CONNELL taken by the Defendants under the  
Federal Rules of Civil Procedure in the above-  
entitled action, pursuant to notice, before Teresa  
S. Evans, a Registered Merit Reporter, all parties  
located remotely, on the 31st day of July, 2020.

1 Quality Insights to support Healthy Connections.

2 Oh, the MOMS grant. we have -- we are  
3 the implementation Institute for CMS, which is the  
4 center for Medicaid services, for the state MOMS  
5 grant, Maternal Opioid Model which is to extend the  
6 fourth quarter of -- fourth trimester to engage --  
7 continue to engage women in treatment the year  
8 after delivery with substance use.

9 Q. Any idea how much that is a year?

10 A. Not enough. The total award is a couple  
11 million, but it's mostly to the health centers  
12 around the state.

13 Q. Okay. Are some of those health centers in  
14 Cabell or Huntington?

15 A. Yes.

16 Q. Do you know which ones?

17 A. Cabell-Huntington Hospital, Valley Health  
18 System and our project of Healthy Connections.

19 Q. Okay. What's -- can you just tell me what  
20 Healthy Connections is real quick?

21 A. Healthy Connections is a collaboration of  
22 about 20 organizations that started as a  
23 community-based organization to address the gap and  
24 needs of pregnant women with substance use

1 disorders as they often fall through the treatment  
2 gap because they don't rise to a particular level  
3 of intervention and care but they are, obviously,  
4 struggling at a very high rate, and then cause  
5 intergenerational struggles, and so we --

6 Approximately 20 organizations came  
7 together, all of whom work with that population, to  
8 develop a model of intervention, which is our  
9 family navigators and our certified peer recovery  
10 coach who comes alongside mom and family either  
11 prior to delivery or post-delivery and provides  
12 emotional and therapeutic support and helps connect  
13 them to other types of services that they might  
14 need.

15 Q. Okay. And Healthy Connections operates  
16 within Cabell County?

17 A. It does. It was a purely community-based  
18 organization until 2018 when the steering committee  
19 voted to allow it to move in-house for -- into  
20 Marshall Health.

21 Q. Okay. I know we went through a lot of  
22 numbers. But if you could estimate for me  
23 approximately like how much -- well, let me back  
24 up.



1 implementation, grant writing, development and to a  
2 much smaller degree, the research component.

3 Q. And that work involves individuals and  
4 families struggling from substance use disorders  
5 and addiction, including opioid addiction?

6 A. Yes.

7 Q. And based on your collective experiences  
8 again within the community and the professional  
9 work that you've been working with in the community  
10 and your observations, I'd like to ask a couple of  
11 questions. Is there an opioid-related public  
12 health epidemic in the City of Huntington and  
13 Cabell County?

14 MR. JONES: I'll object to the form of  
15 the question.

16 A. In my personal experience, the current data  
17 that is released indicates that we have an opioid  
18 crisis in Cabell County and the City of Huntington.

19 Q. And Doctor O'Connell, how would you  
20 characterize the impact of the opioid crisis or  
21 epidemic on Cabell County and the City of  
22 Huntington?

23 A. Could you clarify the question?

24 Q. In your experiences and your professional

1 work, how would you describe the opioid crisis in  
2 the City of Huntington and Cabell County?

3 A. I would say that it affects every  
4 individual who lives or works in the city and  
5 County and larger region as a result of the  
6 significant loss of human life, the obvious  
7 overdoses that occur, unfortunately, in public, the  
8 effect on the legal and housing system, the  
9 overwhelming effect on the health care system and  
10 first responders, the effect on the education  
11 system and the impact it has on the financial  
12 standing of individuals within the community.

13 Q. Are there effects particularly on the  
14 families of children born exposed to opioids?

15 A. Yes. We see with -- in my professional  
16 experience at Project Hope, I see the negative  
17 effects of infants who are born with substance  
18 exposure either diagnosed as neonatal abstinence  
19 symptoms or neonatal withdrawal symptoms, and we  
20 experience the necessary level of care that is to  
21 help mom overcome her substance use, care  
22 appropriately for that child and the level of  
23 intervention that is necessary just even in the  
24 short window that we work with them professionally

1 at a program like Project Hope or through Healthy  
2 Connections.

3 Q. Has it been fair to say that the opioid  
4 addiction has greatly impacted children and  
5 families and their ability to stay together?

6 A. Yes.

7 Q. And how has -- you and within your work at  
8 Marshall and with your work with the various  
9 organizations that you mentioned today, what is  
10 part of the goals of your programs in regards to  
11 family and children matters?

12 A. Our work within Project Hope and Healthy  
13 Connections and other services that touch children  
14 and families specifically is to work on  
15 reunification when at all possible, to reduce the  
16 significant burden that has been placed on the  
17 foster and adoption system and Child Protective  
18 Services and to try and promote both a safe and  
19 healthy reunification for that family, which we  
20 know in the research is often best, and also our  
21 work is to often try and support that family in the  
22 potentially the lowest level of care necessary for  
23 them to both survive and thrive.

24 Q. And Doctor O'Connell, through your work

1 within the City of Huntington and Cabell County,  
2 have you seen and experienced members of your  
3 community facing addiction and their struggles to  
4 work through their addictions to attempt to lead a  
5 normal, healthy life?

6 MR. RUBY: Object to the form.

7 A. Yes, that's something -- yes, that's  
8 something that I'm familiar with.

9 Q. And can you just tell us a little bit about  
10 that, knowing that we could be here a long time  
11 with that. But your -- from your overview and the  
12 impact on persons addicted to prescription opioids  
13 and resulting addictions to other opioids, what are  
14 the things that you've witnessed and experienced in  
15 attempts to work professionally to address?

16 MR. RUBY: Object to the form.

17 MR. MAHADY: Object to the form.

18 A. I would state that we -- our experience has  
19 been to attempt to -- that we see the negative  
20 effects of individuals who lose their lives as a  
21 result of an opioid overdose and the effects of the  
22 lack of Narcan or some other life-saving  
23 intervention.

24 We see individuals who cannot get out

1 of the cycle of addiction because of, you know, the  
2 -- how addictive the chemical brain response is to  
3 the substance that they're on and therefore the  
4 difficulty in engaging them in effective treatment.

5 We see lack of access to treatment when  
6 an individual with a substance use disorder wants  
7 it, because we know we have a very short window to  
8 actively engage that person before they go out and,  
9 you know, unfortunately play a game of Russian  
10 roulette with the substance that they're using, and  
11 then we work to try and ensure that they have  
12 immediate and appropriate access to treatment of  
13 the necessary level of care with the lowest  
14 barriers.

15 And unfortunately, we know there to be  
16 an overwhelming amount of barriers, including  
17 transportation, insurance costs, child care, what  
18 to do with their child if they go into residential,  
19 wait lists and capacity overall.

20 Q. And Doctor O'Connell, I've sometimes heard  
21 and I think within speaking to many members of the  
22 community and obviously reading various writings  
23 about the community, there's been a  
24 characterization that the impact of the opioid

Ex G – Deposition Excerpts of Stephen Petrany, M.D., dated 08/06/2020

Plaintiffs' Supplemental Federal Rule Civil Procedure 26(a)(2)(C) Disclosures

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA

\* \* \* \* \*

THE CITY OF HUNTINGTON,

Plaintiff,

vs.

CIVIL ACTION  
NO. 3:17-01362

AMERISOURCEBERGEN DRUG  
CORPORATION, et al.,  
Defendants.

---

CABELL COUNTY COMMISSION,  
Plaintiff,

vs.

CIVIL ACTION  
NO. 3:17-01665

AMERISOURCEBERGEN DRUG  
CORPORATION, et al.,  
Defendants.

\* \* \* \* \*

Videotaped and videoconference deposition  
of DR. STEPHEN PETRANY taken by the Defendants  
under the Federal Rules of Civil Procedure in the  
above-entitled action, pursuant to notice, before  
Teresa S. Evans, a Registered Merit Reporter,  
everyone located remotely, on the 6th day of  
August, 2020.

1 there is some evidence, some real evidence, that  
2 things are actually getting worse again.

3 Q. With respect --

4 A. Going in the wrong direction.

5 Q. With respect to 2018, which is the time  
6 period that Doctor Gilbert's citing here, does 41  
7 percent seem like a reasonable number to you?

8 A. I think I recall that number as being what  
9 was being stated at the time publicly.

10 Q. And there are some -- in the next  
11 paragraph, there's a list of bullet points that  
12 includes some of the components of Doctor Gilbert's  
13 proposal. And I believe that some of these are  
14 similar to what ultimately was included in the  
15 Resiliency Plan. The first one is "the building of  
16 a comprehensive research and treatment center."

17 A. Uh-huh.

18 Q. Does that appear to be similar in concept  
19 to the Addiction Sciences Institute that was  
20 ultimately included in the plan?

21 A. Depends what you mean by "similar."  
22 There's not -- the Resiliency Plan does not call  
23 for a treatment center. Yes, research; yes,  
24 education; yes, community engagement. But



1 Q. What was his input?

2 A. Before the meetings, I met with some  
3 individuals individually. I thought it might not  
4 be easy for them to make it to the meetings, but  
5 also their input, I thought, was important for the  
6 team.

7 Among those five or six people that I  
8 met before we had our first meeting to get their  
9 input and to get their insight was Doctor Gilbert.  
10 I sat and met with him for about maybe a half hour,  
11 45 minutes to get his thoughts on and contributions  
12 to the plan.

13 Q. And what were his contributions?

14 A. Well, it -- I don't have notes from that --  
15 from that meeting with me. So I cannot outline  
16 specifically what they were.

17 Q. Did you take notes --

18 A. I probably took some notes, but I don't  
19 know that I kept them. I'm sure I didn't unless  
20 you have them, because all my notes, you have. But  
21 I don't recall whether I still have them or not.  
22 So you would know better.

23 Q. Do --

24 A. The main thing I recall from his meeting

1 was his understanding that it needed to be a  
2 community-based and supported plan, and he thought  
3 that, of course, from his perspective, that  
4 Marshall University needed to be a major element in  
5 terms of being involved in any solutions.

6 Q. Why did he feel that it needed to be  
7 community-based and supported?

8 A. Why? I don't know. You'll have to ask  
9 him.

10 Q. Did you agree with that?

11 A. Yes.

12 Q. Why?

13 A. Because that makes for better programs and  
14 more effective solutions.

15 Q. Was it important to the Resiliency Plan  
16 process that it was community-based and supported?

17 A. It was to me.

18 Q. And do you think that the community-based  
19 process used in the Resiliency Plan in fact made  
20 for better programs and more effective solutions?

21 A. Ask the question again. I'm sorry.

22 Q. Do you think that the community-based  
23 process used in the Resiliency Plan in fact made  
24 for better programs and more effective solutions?

1 A. It made for a better plan, yes.

2 Q. The plan wouldn't have been as good, in  
3 your opinion, if you hadn't used the  
4 community-based process that you did; is that  
5 correct?

6 A. Yes, and that's why I approached it from  
7 that direction.

8 Q. Let me ask you to open Exhibit 27A.

9 PETRANY DEPOSITION EXHIBIT NO. 27A

10 (E-mail from Maiolo to Petrany and  
11 various other recipients Re: Updated  
12 Resiliency Plan Draft dated 7-26-19  
13 with Resiliency Plan Framework  
14 attached (MARSHALL\_FEDWV\_00065554-579)  
15 was marked for identification purposes  
16 as Petrany Deposition Exhibit No.  
17 27A.)

18 A. All right.

19 Q. Do you recognize this document?

20 A. Do I recognize it? Do I remember it? No,  
21 but I will read it.

22 Okay.

23 Q. You've had a chance to read it now?

24 A. Yes.

1 whether or not these patients that are addicted to  
2 opioids began at the outset with prescription  
3 opioids?

4 A. I have a relatively small practice, and it  
5 would be hard for me to extrapolate from that with  
6 regard to that particular question in my personal  
7 practice.

8 Given my other responsibilities as  
9 chair and educator, my practice is -- is rather  
10 small.

11 Q. So based upon your overall experience with  
12 your responsibilities, do you have an opinion as to  
13 whether or not prescription opioids are a gateway  
14 to the initiation of heroin use?

15 A. They are for some.

16 Q. All right. Tell me about that.

17 A. Well, I mean, the -- what we've discussed  
18 already. At times -- I mean, when -- with the  
19 overprescription of opioids to patients and then  
20 the legislative tightening down of the  
21 circumstances under which opioids could be  
22 prescribed, many people who are now addicted to  
23 opioids turn to street drugs - heroin and others -  
24 to satisfy their addiction.

1                   That often leads to overdose and death.

2           Q.     So when somebody is addicted to  
3     prescription opioids and then is seeking to fill  
4     that void, why is it that they go to heroin and not  
5     tobacco or alcohol or ginger snaps?

6           A.     Because none of those satisfy the  
7     physiological need and craving that is experienced  
8     with withdrawal from opioids.

9           Q.     So why does heroin respond to the  
10    withdrawal symptoms of prescription opioids?

11          A.     Well, it's an opioid, so it -- it satisfies  
12    the need for an opioid. I can't say specifically  
13    why heroin. I am told -- I -- you know, I -- my  
14    understanding is that it was relatively inexpensive  
15    on the streets and available, I guess.

16          Q.     Based upon your experience and roles in our  
17    community, do you believe that addiction to opioids  
18    is presently a public health crisis in Huntington/  
19    Cabell County, West Virginia?

20          A.     I certainly think it's a public health  
21    problem, yes.

22          Q.     What about abuse of opioids?

23          A.     I'm sorry, what's the distinction between  
24    that and what you said before?

Ex H – Deposition Excerpts of Kevin Yingling, dated 07/24/2020

Plaintiffs' Supplemental Federal Rule Civil Procedure 26(a)(2)(C) Disclosures

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA

\* \* \* \* \*

THE CITY OF HUNTINGTON,

Plaintiff,

vs.

CIVIL ACTION  
NO. 3:17-01362

AMERISOURCEBERGEN DRUG  
CORPORATION, et al.,  
Defendants.

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CABELL COUNTY COMMISSION,  
Plaintiff,

vs.

CIVIL ACTION  
NO. 3:17-01665

AMERISOURCEBERGEN DRUG  
CORPORATION, et al.,  
Defendants.

\* \* \* \* \*

Videotaped and videoconference deposition  
of KEVIN YINGLING taken by the Defendants under the  
Federal Rules of Civil Procedure in the above-  
entitled action, pursuant to notice, before Teresa  
S. Evans, a Registered Merit Reporter, all parties  
being located remotely, on the 24th day of July,  
2020.

1 Hall, speaking about overdoses in West Virginia.

2 And you know, that's in the -- that's  
3 in the '04/'05 -- I believe, '04, '05, '06  
4 time frame. And you know, give me a little grace,  
5 but you can scoot that timeline a little forward, a  
6 little backwards. Around in that time.

7 And then what references that back to  
8 me, is I remember an article comes out -- I believe  
9 it's in the Journal of the American Medical  
10 Association - and specifically references West  
11 Virginia and specifically references Doctor Hall,  
12 who had been talking to us at these summits and  
13 identifying that patients are overdosing, and of  
14 course, as the coroner, they died, and they had  
15 prescription drug overdoses.

16 So it's in this time frame that I'm --  
17 my mind is completely harkened to the understanding  
18 that there is a significant amount of medications  
19 which are being used in the nonmedical use and  
20 abuse. Somewhere in that time frame, that's what  
21 strikes me.

22 That prescription opioids for  
23 nonmedical use. Now, you know, forgive me for  
24 being completely naive -- I'm not. But you know,



1 here I am thinking about how I practice, how I  
2 teach at the medical school, what we teach  
3 residents and physicians, how it's properly done,  
4 and the concept that people are overdosing on  
5 prescription medications and they never even had a  
6 prescription.

7 Now, that strikes me in the mid 2000s.  
8 I probably shared that kind of thing. That -- plus  
9 reminds me, there's something else I shared in  
10 there -- I don't know.

11 That gets me to that pivot point of  
12 2010. After that, I probably shared as a physician  
13 -- now I'm moving from my responsibilities as an  
14 academic physician organizing -- you know,  
15 organizational leadership of a department and  
16 physicians and pulmonologists and cardiologists and  
17 all that. I'm moving from that, away from that  
18 towards the Dean of the medical school, still  
19 attending --

20 And now what is then brought to my  
21 attention -- and again, another inflection point  
22 just for my own personal career. How it fits for  
23 the timeline of everything else, I can't  
24 particularly place for you.

1           That challenge, of decreasing harm to  
2     that addicted population, is enormous and has been  
3     the focus of the health department for several  
4     years and the reason for starting the Harm  
5     Reduction Program which is syringe-based, and a  
6     multitude of other services.

7           Adding to that the naloxone program.

8           That brings me to the significant  
9     burden of overdoses, nonfatal and fatal, in Cabell  
10    County. That is a significant burden. If we speak  
11    to the side, at least my brief summary on the side  
12    of opioid-related -- the nonmedical use of opioids  
13    related to dying, is the tragedies to families, to  
14    parents, to spouses, to siblings, to children from  
15    that.

16           The loss of economic value to that  
17    family, the tragedies, the psychosocial trauma,  
18    outcomes from that that will be borne out by this  
19    community for decades.

20           This will be generational for sure that  
21    that burden is upon this community.

22           When it comes to opioid -- nonmedical  
23    use opioid mortal -- I mean, morbidity, in addition  
24    to the things I've just spoken about there, we have

1 all the concerns about the treatment of pregnant  
2 mothers who are -- have addiction as a disease,  
3 their children, the neonatal absence syndrome  
4 burden that comes from that population.

5 The care of those women and their  
6 children after delivery. The -- and to put some  
7 touch points on that, that would be the Lily's  
8 Place and other organizations.

9 But in addition to that, is: What is  
10 going to be the economic and community burden of  
11 raising up those children, some of whom don't have  
12 families to raise them, some of whom will be in  
13 foster homes and the burden upon foster care.

14 What will be the outcome of those  
15 students who, in utero, were exposed to medications  
16 of abuse? And what's the burden as they move into  
17 the health -- into the primary education system?  
18 And all of those concerns.

19 That, clearly, is part of this as I see  
20 it.

21 Another burden would be: How do we  
22 organize properly platforms that would allow  
23 individuals to move into long-term recovery? How  
24 do we maintain them in long-term recovery? How are

1 numerous patients that are in that category of  
2 which this community is burdened in one way or  
3 another, many of them not having even coverage for  
4 the medical care that they're receiving.

5 What do we do when they transition out  
6 of that hospital? What do we do to get them back  
7 in long-term recovery?

8 Those are all part of what I see as the  
9 burdens of addiction.

10 So I see children, mothers, families,  
11 individuals in the -- and afflictions of their  
12 diseases.

13 I see the burden of the addicted  
14 population who are not in long-term recovery, the  
15 challenges that are faced by law enforcement and  
16 how that's managed and how that's an extreme  
17 economic burden and personnel burden upon law  
18 enforcement in this county.

19 I don't know. Counsel, I could  
20 probably go on. I don't know if I've answered your  
21 question.

22 Q. Yeah. I'm attempting, as a layperson, to  
23 get my arms around all of that which you've said.  
24 And one of the things that we'll be trying to use

1 personal experience and my experiences in the  
2 community around the time of late two thousand --  
3 I'll take 2005 to 2010 or '11, my understanding is  
4 for reasons that I cannot completely define, there  
5 is a flood - that's my word, a flood - of opioid  
6 medications available to any number of peoples  
7 within any numbers of communities within Cabell  
8 County and Huntington.

9 And it is my understanding based on the  
10 literature and my exposure and interaction with  
11 people like the Huntington Police Department and  
12 people like Mr. Johnson to understand that around  
13 the same time that there was that unfortunate  
14 setting, heroin was introduced into this community.

15 And in fact, it would be my -- I would  
16 hold the understanding from the medical literature  
17 that the uptick in the use of heroin - not just in  
18 this community, but in general - began during the  
19 late two thousand -- 2008, '09, '10, and continued  
20 rapidly as we move from '10, '11, '12, '13 and '14.

21 I believe that there is a clear  
22 biologic plausibility, a clear biologic  
23 plausibility, to the transference of addiction to  
24 opioids and opiates - synthetic or otherwise - a

1 biologic plausibility that goes from my addiction  
2 to what originated as the nonmedical use of  
3 opioids, prescription opioids, to the use and abuse  
4 of other products, which would be the Schedule I  
5 nonmedical use of heroin, fentanyl, carfentanil,  
6 etc.

7 So in my mind, there -- I hold the  
8 opinion that there's a clear linkage between those  
9 two, and I support that from my experience, from my  
10 reading of the medical literature and from my  
11 experiences within the organizations that I've  
12 served.

13 That leads to me -- leads me to  
14 understand that but for the setting, the situation  
15 of this enormous amount -- in a sense, unrestricted  
16 pool of what I would have considered to be  
17 prescription opioids, but for that, I can't see why  
18 there would have been the use of heroin and the  
19 subsequent consequences of the burden -- and the  
20 burden of addiction and all the things that I've  
21 already articulated.

22 Q. So let me see if I can get a clean question  
23 and answer so that I can cite it in my response to  
24 summary judgment motions.

1 Do you believe there is a direct causal  
2 relationship between prescription opioid addiction  
3 and abuse and the initiation of heroin use?

4 MR. SALIMBENE: Object to form.

5 A. Yes.

6 Q. Do you believe that prescription opioid  
7 addiction and abuse is a primary gateway to heroin  
8 use?

9 MR. SALIMBENE: Object to the form.

10 A. Yes.

11 Q. Do you believe that prescription opioid  
12 addiction and abuse is also a primary gateway for  
13 methamphetamine use?

14 MR. SALIMBENE: Object to form.

15 A. Yes.

16 Q. So --

17 MR. FARRELL: That's all I've got.

18 Thanks, Doc.

19 MR. SALIMBENE: My turn again, Paul?

20 MR. FARRELL: Yep, he's all yours.

21 MR. SALIMBENE: Okay, thank you. And  
22 thank you for sticking to the 30 minutes. I  
23 appreciate that.

24 EXAMINATION